

**DEPARTMENT OF WATER AFFAIRS (DWA)
PRICING AND ECONOMIC REGULATION REFORM (PERR) PROJECT**

**(Pricing Strategy Review, Development of Infrastructure Funding Model and the Establishment
of Economic Regulation)**

Minutes of a meeting of the Funding Model Work Stream

Date: 14 November 2012
Time: 09:00–13:00
Venue: Southern Sun Hotel, Steve Biko Street, Arcadia, Pretoria

Present:

Department of Water Affairs

Bofilatos, E
Hlatshwayo, L
Ismail, F
Mabela, K
Machedi, N
Mathe, ZY
Mochotlhi, D
Morodi, C
Moshidi, S
Mudau, N
Sekgothe, P
Sigwaza, DP
Van den Berg, O

Stakeholder representatives

Kritzinger, W	Agri SA
Opperman, N	Agri SA
Muiko, K	Amatola Water
Thompson, C	Amatola Water
Mofokeng, P	Department of Agriculture Forestry and Fisheries (DAFF)
Peter, M	Forestry SA
Schmahl, C	Lepelle Northern Water
Raphela, A	Magalies Water
Brink, M	Mhlathuze Water
Moalusi, M	Rand Water
Ncobela, L	Rand Water
Nyandoro, T	Rand Water
Nyembe, M	Rand Water
Knoetze, N	South African Association for Water User Associations (SAAFWUA)
Botha, M	Policy adviser to South African National Biodiversity Institute (SANBI)
Govender, M	South African Sugar Association (SASA)
Gevers, N	Umgeni Water
Singh, K	Umgeni Water
Naidoo, D	Water Research Commission (WRC)

Professional service providers

Hayat, T	Pegasys
Koch, P	Pegasys
Madinginye, TDS	Pegasys
Pegram, G	Pegasys
Schreiner, B	Pegasys
Sussex, A	Write Connection (Scribe)

Apologies:

Chimuti, S	National Treasury
Ngobeni, V	National Treasury
Moraka, W	South African Local Government Association (SALGA)

Ndlovu, J
Petersen, A

Trans-Caledon Tunnel Authority (TCTA)
DWA-WC

1. OPENING, WELCOME AND PURPOSE OF THE MEETING

Ms Mathe, the chairperson, opened the meeting and welcomed everyone. She congratulated Rand Water on the launch of their annual report the previous evening. Rand Water had increased their revenue by 46 percent and reduced their operating costs.

The three work streams' chairpersons and co-chairpersons had met the previous day to hold discussions to ensure a common focus. All had agreed that the difference between the funding and pricing strategies work streams was unclear. It was decided that Dr Pegram should attend the funding model work stream meeting, as the funding model informed the pricing strategy. Going forward, an attempt would be made to combine both work streams into a single work stream.

Mr Nyandoro, Rand Water, was originally supposed to co-chair the meeting, but Rand Water had indicated that the Chief Financial Officer (CFO), Ms Nyembe, should co-chair the meeting due to the high profile nature of project.

2. ADOPTION OF AGENDA

Ms Mathe requested that agenda items five and six be swapped around: first 'Funding vs. financing' and then 'Principles for infrastructure finance and common understanding'.

The agenda was adopted and the chairperson allowed a round of introductions.

3. ADOPTION OF MINUTES

There were no changes requested. The action items were discussed in turn. The action items were attached to the printed agenda. The chairperson requested that Mr Morodi include a blank column on the attachment in future for recording the item status.

Action: Project Management Office

Item 1	Mr Morodi would follow up with the IT section on progress in creating the blog. Once the blog was operational, the blog link would be sent to work stream members.
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The blog had been created and the link had been circulated.

Item 2	The Project Management Office would contact work stream members individually within the following week to obtain their comments on the Inception Report.
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Work stream members had been contacted.

Item 3	A comments register would be created, in which all comments would be recorded, including who had made the comment and when it had been made.
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The item was in progress. The chairperson asked why that was so, and requested that the item at least be finished manually, if not electronically. It was important that work stream members' comments be taken into consideration. She also requested that the manual register be circulated amongst members once completed.

Action: Project Management Office

Item 4	Software was being set up that would automatically inform committee members when new comments were posted. This pertained only to major comments.
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As per item three.

Item 5	Any new comments from the work stream members that had arisen as a result of reflection since the Project Steering Committee (PSC) meeting on 13 July 2012 should be submitted to and noted by the Project Management Office.
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As per item three.

Item 6	Work stream members would receive the minutes of the PSC meeting on 13 July 2012.
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Work stream members had received PSC meeting minutes.

Item 7	The Project Management Office would take the matter of funding the proposed change of scope of the project up with the PSC and report back to the work stream.
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The chairperson requested deliberation on item seven (the inclusion of the entire water value chain into the project) as it was highly important and had been outstanding since 2007.

Ms Sigwaza said that the difficulties in resolving the matter pertained to procurement issues. The mandate was to consider funding and pricing for the entire water value chain. A contract had already been awarded to Pegasys to look at the water resources component, so the options were to submit an extension order or to select another consultant for the water services component. Ms Sigwaza requested that the matter be discussed further outside of the work stream meeting.

Mr Naidoo was told at a previous PSC meeting that there was a project in the water services domain that the DWA was close to concluding. He asked whether the chairperson was aware of that project and she replied that she was not.

Ms Sigwaza affirmed what Mr Naidoo had said, and said that the owner of the project was Ms Mohotlhi. She repeated the request to continue the discussion outside of the meeting.

Mr Ismail said that when the raw water pricing strategy was concluded for the entire value chain, it would result in changes to a parliamentary act. The inclusion of the entire value chain into the project would require work that would involve all role-players within the water sector. It was important to consider upfront what impact that work might have on the sector.

The chairperson said that it was agreed in principle that consideration of the entire water value chain comprised a single project, and said that the matter could be discussed further outside of the meeting.

Item 8	The principles would be expanded to include social impacts and governance.
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The item was completed.

Item 9	National Treasury would send their consolidated comments to the Project Management Office.
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The comments had been received.

Item 10	The Project Management Office would obtain the official definitions of funding and finance from National Treasury and incorporate the definitions into the Inception Report.
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The official definitions had been incorporated into the Inception Report.

Item 11	The PMO would accept comments on the Inception Report and international review until 17 August 2012. Those comments would be consolidated, added to the comments register and presented at the next work stream meeting.
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The item had been completed.

Item 12	Water-related stakeholders that were not yet involved in the work stream would be encouraged to participate. Other stakeholders (for example, SANRAL) could be involved as appropriate.
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Item 12 was not commented on.

Item 13	The technical team would take the following into account in finalising the Inception Report and in future tasks: ...
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The technical team had taken the list of items into consideration in the finalisation of the Inception Report.

Ms Sigwaza mentioned that the minister was concerned about the issues around funding and pricing in terms of the proposed deadline of 31 March 2012. She requested that work stream members be open to other's ideas and provide constructive criticism.

4. MATTERS ARISING FROM MINUTES

Item seven (the PMO would take the matter of funding the proposed change of scope of the project up with the PSC and report back to the work stream) required further discussion that would take place outside of the work stream meeting.

Action: Project Management Office

5. COMMON UNDERSTANDING: FUNDING VS. FINANCING

Dr Pegram presented the development of principles for the financing of water resource infrastructure. There were only three sources of funding for any country:

- Taxes (generally applied)
- Tariffs (targeted at users for services)
- Transfers (external contributions).

Dr Pegram provided a distinction between financing and funding:

- Financing was about managing cash flow related to infrastructure development; it concerned raising the capital required to enable the initial investment in infrastructure.
- Funding was about who ultimately paid for the infrastructure; it related to paying for capital and operating costs over time.

Sources of financing:

- Utility reserves (previous tariffs / charges)
- Fiscus (capital grants)
- Debt (commercial loans, bonds)
- Private equity (equity, Public Private Partnership [PPP], build/own/transfer [BOT], concessions)
- Global transfers (green funds).

Sources of funding:

- Taxation, through the fiscus (national revenue fund) or targeted by levies or municipal rates
- Tariffs or charges, to recover the costs of infrastructure or services provided in supplying water or treating waste water
- Transfers, from external funds, such as the green fund for climate adaptation.

Mr Peter asked whether financing and funding would be discussed in relation to links to the other work streams. Dr Pegram replied that the presentation only dealt with the funding model, but that the matter could be discussed.

The chairperson said that the discussion that had been held the previous day had covered links to other work streams, particularly economic regulation. The subject of economic regulation had been engaged with extensively, but it was also necessary to consider institutional and technical regulation. She outlined two examples of projects that had been oversized. The capital expenditure and operations and maintenance (O&M) costs were higher than had been anticipated and planned for, and had to be recouped as tariffs.

Mr Peter said he was concerned about the link between the funding model work stream and pricing strategy work stream. There was a danger that timber growers that did not use the infrastructure would be charged for the building of dams and pipelines. The timber growers were currently the only group paying a stream-flow-reduction levy; the levy should possibly be extended to other dry-land users.

The chairperson believed that Mr Peter's point was important and said that the DWA was working towards ring-fencing all revenue streams.

Mr Naidoo agreed that Mr Peter's point was an important one for consideration, but added that consideration should also be given to a pricing strategy that distributed risk, the implication being that some users would subsidise others. He said that the issue raised an important debate that should be held at some point.

Ms Mahotli commented that institutional and technical regulation was already backed by mandates and legislation. One of the goals of the PERR project was to determine the scope of economic regulation in order to formulate sound legislation.

Mr Kritzinger said that different kinds of taxes were created as a result of building a dam, for example, such as export taxes and access taxes. He asked how government could be persuaded to contribute from the fiscus, on the basis that building the dam would ultimately enlarge the income of the fiscus.

Dr Pegram said that his response was covered in the remainder of the presentation. Before a discussion on the principles, he wished to ensure that all present had a common understanding of the different elements of the financing and pricing processes and where economic regulation might fit with those at a conceptual level.

6. PRINCIPLES FOR INFRASTRUCTURE FINANCE

Dr Pegram presented a diagram on water flows, infrastructure, users and charges. The diagram represented the hydrological cycle as recognised by the National Water Act (NWA) and conceptualised the entire water value chain. The cycle encompassed four domains, each with infrastructures:

- Catchment
 - Catchment ecosystem services (natural infrastructure).
- Water resources
 - Aquatic ecosystem attenuation services (natural infrastructure)
 - Water resources infrastructure
 - Aquatic ecosystem assimilation services (natural infrastructure)
 - Water quality mitigation infrastructure.
- Bulk water services
 - Bulk water supply infrastructure
 - Bulk water treatment infrastructure
 - Bulk waste water treatment infrastructure
 - Bulk waste water infrastructure.
- Water services
 - Water supply reticulation infrastructure
 - Waste water sewerage infrastructure.

Users:

- Forestry water use (catchment)
- Aquatic ecosystem requirements (catchment and water resources)
- Agricultural water use (water resources)
- Bulk industrial, mining and power water use (water resources and bulk water services)
- Municipal domestic and industrial consumers (water services).

Pricing:

- Stream flow reduction charges water resource management charges

- Working for water and paying for environmental charges
- Abstraction water resource management charges
- *Efficiency levies (not established yet)*
- Water resource infrastructure charges
- *Waste discharge water resource management charges (not established yet)*
- *Waste discharge charges (not established yet)*
- Bulk water services tariffs
- Bulk waste water tariffs
- Water services tariffs
- Sewerage and trade efficiency tariffs.

The project team engaged with the water resources components of the system; the team did not have a mandate to engage with the water services and bulk water service components, but both were under consideration for addition to the project.

The funding model aspect of the project attempted to determine how the infrastructures would be funded for water resources.

The pricing strategy aspect of the project looked at pricing mechanisms for those infrastructures, for example the tariffs.

The economic regulator project considered the water providers and related entities, such as local government, water boards and bulk water services, national water resources trading entities, TCTA, water user associations and Catchment Management Agencies (CMAs):

- Resource water users paid the CMA implementing agent (natural infrastructure).
- Agricultural water users paid the DWA National Water Research Institute (NWRI) entity (water resources infrastructure).
- Bulk industrial, mining and power water use paid water boards and bulk water service providers (bulk water services infrastructure).
- Municipal domestic and industrial consumers paid water service providers (water services infrastructure).

The way that an economic regulator would deal with infrastructure and pricing was different for the different domains: for water resources it was national government who would decide on infrastructure and set tariffs; for bulk water services it was the water boards who would decide on infrastructures and tariffs; and for water services, it was the municipalities. The layers were constitutionally different from each other. Each entity would have to raise capital to fund infrastructure.

To finance the infrastructure, there were three options:

- Reserves inside the utility
- Grants from national government
- Debt from financial institutions.

The financing model would determine how to find money. The pricing model would determine how to charge users equitably and sustainably. The economic regulation discussion would determine what tariff was appropriate and which infrastructures should be charged for.

The chairperson said that the presentation highlighted an omission in the way costing was being conducted, especially in terms of operational expenditure (OPEX). In South Africa, National Treasury was not approached for augmentation of OPEX. Fiscus's contribution to infrastructure was limited to capital expenditure (CAPEX).

Dr Pegram responded that National Treasury would argue that from a social perspective, the equitable share would cover OPEX. There was an element of the national infrastructure that concerned regional nodes of development as part of the rural development strategy. It was important to ensure affordable water for regional development, not just for indigents. Dr Pegram believed that that raised an interesting discussion on the role of National Treasury at both a grant and operational level.

Ms Nyembe agreed that a component was missing from the work that had been conducted on the project. The funding models focused on tariffing issues and how to enhance revenue streams, and work had been done on transfers, but possibly a review was needed at the fiscus level of the current subsidies and grants provided by National Treasury for water infrastructure and OPEX.

The chairperson felt that a coherent accounting strategy was required that included National Treasury, government departments and water boards that determined the costs of running the asset.

Mr Ismail said that from an equitable share and O&M point of view, there were many challenges. There was a great deal of work to do around revenue management, but once completed, there would still be a need for an operating subsidy. Even with current pricing strategy, there was an element of under recovery that did not pertain to capital, but with operating and maintaining the raw water infrastructure (excluding the local authority infrastructure). It was essential to work more closely with National Treasury.

Mr Mabela raised a number of issues that he felt that the project should address. He mentioned that transformation was a constitutional imperative, and that the pricing strategy should consider how to fund infrastructure development. He asked how substantial investment could be made into infrastructure when users were reluctant or unable to pay for the cost of those investments. He said that the advent of CMAs and the intergovernmental CMA transfers would also have an impact and needed to be considered in the pricing strategy. Consideration for environmental taxes was also crucial, as was an audit of what taxes existed, and educating the consumer on the reasons for having them. Lessons learned from the SASA and E-toll should be incorporated into the project strategy. He mentioned that section 38 of the Public Finance Management Act (PFMA) made strategic provisions where non-payment was concerned.

Ms Gevers agreed that National Treasury should consider ways of calculating equitable share by ring-fencing funds. If money was being made available for the payment of tariffs then that money should flow back again. There was a need for greater accountability at a national level.

Mr Knoetze said that Water User Associations (WUAs) provided bulk water to municipalities, and in some cases, the municipalities depleted their funds and did not pay the bulk water suppliers. The municipalities then complained when the water suppliers threatened to cut the supply. Both water boards and WUAs experienced the problem.

The chairperson commented that when a complaint was made that there were insufficient funds, a common response was that there was an unused revenue stream that could be utilised, for example, a waste discharge revenue stream. She asked whether it could be added as a critical success factor that the waste discharge management levy be privatised as part of the process of transformation of the sector. The matter could be debated but she requested that it be added in the meantime.

Action: Project Management Office, Technical team

Mr Naidoo responded to two issues that had been raised. One was a dedicated funding stream – there were tangible risks associated with that. The water sector should not underestimate its current level of cross-subsidisation and what the implications would be of losing that. The second issue was that the current calculations did not take into account O&M costs. He said that a recalculation was important and should be made in-house. Mr Naidoo observed that the work stream group appeared to be banking on a National Treasury rescue, and that probably would not occur.

Dr Pegram presented the constitution and developmental imperatives in terms of the types of principles that needed to be considered in a developmental state. There was a need for a range of principles including water management principles and financial principles, all of which would be underpinned by the principles of good governance.

Constitution and developmental imperatives:

- Equity
- Redress
- Access to water
- Environmental sustainability
- Appropriate economic development.

Water management principles:

- Equitable allocation
- Redress of historical inequities
- Sustainable utilisation
- Optimal beneficial use
- Emerging issues of adaptation/resilience to climate change
- Water efficiency and conservation
- Viable infrastructure.

Dr Pegram said that National Treasury felt that the water sector should be self-financing, so it was important to motivate any requests for funding.

Financial principles:

- Fiscal allocation efficiency
- Operational efficiency
- User pays for water services, but constrained by affordability
- Introduces need for:
 - Fiscal support or cross-subsidisation
 - Restrictions of the NWA posed the question of where to source money for the latter.
- Fiscal support:
 - For social infrastructure
 - What about regionally competitive infrastructure, particularly in rural areas?
- Risk sharing and return.

Dr Pegram said that ensuring that water did not constrain development in rural areas posed an interesting problem. The work stream would have to consider that problem in terms of various questions going forward around how infrastructure would be financed, how the pricing strategy would be constructed, and how to put forward the argument to National Treasury for allocation efficiency. The cost of operations and capital would need to be assessed as well as the implications of opting for expensive vs. cheaper water.

Dr Pegram said that obtaining funds from the private sector involved risk, and the risks needed to be matched by the returns. It was not so much about water resources, but about managing money, and how National Treasury perceived that management of money.

Institutional/governance principles:

- Private sector participation:
 - Within a managed environment
 - Risks reflect returns.
- Accountable institutions with a clear mandate
- Government guarantees:
 - What is the principle?
 - Linked to infrastructure and social purpose, or to an institution?
 - Who ultimately bears the risk?
 - Mechanism must be sustainable and efficient at project or institutional levels.

Infrastructure development and operations:

- Reliability (assurance) and fitness for use (quality)
- System efficiency (technical)
- Full life-cycle asset maintenance plan
- Public safety
- Robustness (resilience)
- Full value chain continuity
- Backward integration.

Infrastructure financing and funding:

- Limited fiscal support
- Sector financial integration

- Project economic or social viability
- Water sector value chain viability
- Customer protection
- Poor households
- Economic development
- Competitive infrastructure
- Development nodes (regions)
- Targeted operational support mechanisms.

Mr Botha said that he was curious about the economic development perspective. He said that electricity consumption had been decoupled from economic growth, and asked whether water use should be decoupled from economic growth.

Dr Pegram responded that that required a complex discussion. Decoupling economic growth from water use would mean moving into sectors that were not water intensive. The tertiary sector was growing in South Africa. The urban economies were growing significantly. In terms of the broad policies around irrigation, the department's implicit position was that growth had been capped. It would be difficult to decouple water from rural growth; it would be easier to decouple water from urban growth, but if taken too far it would pose significant problems.

The chairperson felt that Mr Botha and Dr Pegram had made a very significant point and asked how the matter could be taken further by the funding model work stream and worked into their strategy. Water use had an impact on eventual yield, and yield had an impact on pricing.

Action item: Work stream

Mr Nyandoro said that the issue of decoupling was one-sided. On the tertiary side and urban side there was room for economic growth without a corresponding growth in water usage. On the rural development side it was assumed water usage had been maximised, but the opposite was true. For example, putting a dam into a rural area could result in a person increasing their number of cattle and using the extra income for school fees.

Mr Nyandoro said that it was less about people not being willing to pay for services; it was about people being unable to pay for services. Unless water was used as a source of growth and development, whatever structures were devised would be inadequate and there would be shortfalls in payment. Mr Nyandoro said that it had to be recognised that there were two economies (urban and rural) and asked how some degree of cross-subsidisation could be ensured from a funding and revenue perspective and an economic regulation perspective.

Mr van den Berg conducted feasibility studies for projects and said that the challenges being faced in terms of the planning and financing of projects were that there were multiple users who were not ready to commit to using water up front. As a result it was difficult to get the necessary security to raise finance for the projects. Implementation also took time, and Mr van den Berg felt that it would be short-sighted not to plan for water needs for the next 20 years, and to allow for the economic and social development that was to take place during that time.

Mr Peter spoke about Mr Botha's question about decoupling water from economic growth. The minister had undertaken to put in place a standardised national tariff by the end of December 2012. There could not be a standardised tariff if certain people were charged for infrastructure that they were not using. Mr Peter believed that there was a way to decouple water from growth. The allocation reform dealt with equity and redress, but also with the most efficient use from an economic and social returns perspective. Forestry used three percent of water and returned 14 percent of agricultural Gross Domestic Product (GDP) (26.5 percent if primary processing was included). Growth could be achieved through the way water was allocated or by charging different rates for those sectors that used water efficiently.

Mr Schmahl spoke about affordability. People in rural areas received sub-standard water services, and frequently paid a far higher amount for that water than their urban counterparts. He had spoken to a woman who was buying untreated water from a vendor for R250 per kilolitre. He made an additional point that the South African public should be educated that they were not paying merely for the cost of

water but for the value added aspects of the service, such as purification. People would be more willing to pay a realistic tariff if it was clear what was being paid for.

Mr Ncobela believed that an element was missing from the funding and financing models. Realignment of the institutions had not been addressed properly. One of the slides had mentioned risk and return. He asked how water boards that had no balance sheets could be expected to fund infrastructure, and he believed the costs would fall to the end-users. Mr Ncobela questioned the roles of various entities such as the water boards, the TCTA and consultants. He asked whether O&M and capital fundraising should be linked or not, as either option would have implications for the cost of funding.

Chairperson agreed with Mr Ncobela's points about institutional realignment, saying that she had raised the same point the previous day. She believed that all aspects of the project needed to be considered in terms of the economic transformation of the water sector. The way institutions were structured would impact on funding.

Ms Nyembe returned to the comments that had been made on decoupling. The National Water Research Strategy (NWRS) was conducting a related water study. She wondered whether information from that study could inform the project principles and the issue of decoupling growth from water use.

Mr Mabela said that there was an interesting slide included in the presentation that implied that cross-subsidisation was not covered by the National Water Act. Dr Pegram responded that there was a question around cost recovery and how cost recovery was defined. Mr Mabela said that there was an initiative outlined in section 60 and 61 of National Water Act that related to financial assistance.

Mr Mabela said that climate change and drought were important issues for consideration. The chairperson requested that his point be flagged.

Action: Project Management Office, Technical team

Mr Nyandoro said that the principles were financially directed, but there should be ground rules in place that were not only financial. It needed to be understood that water was a commercial and communal good. Everyone had a right to water services and there was a need for control and accountability of the entire value chain under a single entity. He stressed again that water was both a public and private good and that dichotomy had to be acknowledged. Water usage in tertiary and manufacturing sectors could experience economic growth without a corresponding increase in water usage, but that was not yet possible in the rural economy. Cross-subsidisation was essential. A financially determined rate of return was not necessarily appropriate for rural communities.

The chairperson said that the preceding points stressed the need for the DWA to act as sector leaders. There were various role-players involved in the water sector, but all should operate under the guidance and leadership of the DWA. That was also a critical success factor in terms of the economic transformation of the sector. She agreed with Mr Nyandoro's points about water being a public and private good.

Dr Pegram said that the principles document did cover the balance between social and economic aspects more extensively, but that had not come through clearly in his presentation, which had focused on the financial elements. He agreed that the imperatives of the constitution and developmental state were the starting points, and that it was critical to understand the difference between rural and urban economies and build that understanding into the financial model.

As far as institutional arrangements were concerned, Dr Pegram said that the project team was trying to identify the best mechanisms to use without being constrained by institutional arrangements.

7. INSTITUTIONAL MODELS FOR INFRASTRUCTURE FINANCE

Dr Pegram said that the project team was presenting the range of approaches that they wished to investigate against key criteria, and asked the group to provide feedback on their thoughts as to the pros and cons of the various approaches and whether the project scope was appropriate.

Action: Work stream

The models were based on:

- Principles
 - Strategic purpose
 - Cost-benefit
 - User pays – but economic vs. social caveat
 - Sustainability.
- Different types of infrastructure
 - Capital and O&M required
 - Revenue sources
 - Management arrangements.

For each model consider the following criteria:

- Governance implications
- Access to finance
- Risk to government (financial and water resource management [WRM])
- Applicability (flexibility)
- Financing requirements (conditions).

Mr Koch commented that the risk was not just financial; as more private sector involvement occurred, a divide between government and private sector goals could become evident, which also posed risks that would require management.

Dr Pegram said that there were capital and operating requirements, and the capital requirement needed to be matched with present funds to serve future purposes, which exposed a shortfall that would need to be funded commercially. He presented slides on direct fiscal funding, ring-fenced special purpose vehicles (SPVs), SPV to house-dedicated cash-flows and strong balance sheets. He said the details pertaining to the slides would be in the report.

Dr Pegram said it was important to note that all of the options presented would be instructed as mandates from the minister. The arrangement was different to Eskom in that regard; Eskom made planning and building decisions.

The chairperson asked why the Eskom model was different, and whether a business driven agency would make more cost effective decisions. Dr Pegram responded that the key distinction was between energy and water. The generation capacity of energy was at a scheme by scheme level, and those schemes were fairly independent of their fuel resources. In the water sector, the schemes were embedded in the environment. Although Eskom had a social mandate, the concern would be that a water utility would not take into account all of the imperatives of water resources management. The chairperson asked that the matter be noted for a future debate.

Action: Project Management Office, Technical team

Ms Schreiner mentioned that it was important to distinguish in the planning chain between water resources planning and design and infrastructure planning. The chairperson responded that the decision on whether to implement a particular infrastructure project did not rest with the infrastructure branch. In a business driven environment, the net present value (NPV) determined whether implementation took place or not. The options analysis and NPV calculation was performed by the planning department; planning influenced the outcome of the design.

Mr van den Berg understood that Eskom also had to receive a mandate from the department of energy through the department of public enterprises. The Integrated Resource Plan for Electricity 2010 (IRP2010) had identified the next coal fired power station and other renewable energy projects, but Eskom could not proceed with building them as the mandate had not been received yet.

Ms Gevers assumed that regional water utilities had strong balance sheets and asked whether the stand-alone institutions in the model included regional utilities; this was affirmed by the technical team.

Mr Ismail referred to the planning issue. When infrastructure had already been built and became economically unviable, the planning entity (agency or other) would be responsible for dealing with the financial ramifications. As mentioned, it was the view of the National Treasury that water should be self-financing. In any business, prior to capital allocation, the return on investment had to be correct, not only in terms of financial returns, but social returns. It was important to identify at the outset, as part of planning, how to fund the social returns. Mr Ismail had no issue with the mandate having to come from the department; it was essential that the department regulated the process.

The chairperson asked Dr Pegram whether another option could be added to the model that reflected Mr Ismail's comments.

Dr Pegram responded that a new model was not required – there was already one institutional model that had optional constructions, and each approach had its associated risks. There was a pre-mandate planning process and a post-mandate implementation process. There were pros and cons to the different ways of arranging those processes, and a discussion was required in that regard.

Ms Gevers said that at Umgeni water when capital charges did not appear on the balance sheet; there was customer resistance to the lack of transparency. It was important when considering the various models to also consider the customers' perceptions of existing models.

The chairperson mentioned the Mooi-Mgeni Transfer Scheme (MMTS) and said that the selected model should take the MMTS situation into consideration. The TCTA was given a directive, the dam was 100 percent funded by debt, and was under construction. Tariff collection had begun despite the dam being incomplete, and Mooi-Mgeni water customers were dissatisfied about it. An issue, which had also been raised by SALGA, related to the admin costs that TCTA had built into the tariff, and it was unclear who regulated the rates. The area was full of informal settlements; it was unfeasible to fund the dam on 100 percent debt.

Ms Gevers said that at a regional level, cross-subsidisation was easier, as the regional branches were better positioned to know how many users could and could not pay. She suggested that perhaps there should be different models for different levels.

Mr Nyandoro felt an element was missing from the model. There was a need for guidelines that said, for example, if so many people in an area are below a certain income level, then it would not be feasible to go to the market to raise a bond. For current and future sustainability, the gap would need to be funded by alternative sources. He asked what kind of entity would be best to oversee that – an agency, a second TCTA or something else, given that water was both a public and private good.

Dr Pegram said that the approaches in the presentation were not mutually exclusive. The suggestion was to graduate along the continuum whilst integrating more and more private sector involvement along the way. The institutional model or models that arose from the study would most likely be hybrids of the various approaches. It was the mandate of the work stream group to determine how far along the continuum to proceed.

Ms Gevers reiterated the importance of not losing sight of the regional utilities when devising the models. The chairperson said that the same concept had been discussed the previous day. Balance sheets could be used for national and regional schemes, but only if a regional utility was in place. The impact of institutional arrangements and should be flagged for further discussion.

Action: Project Management Office, Technical team

The chairperson said that another item that had been earmarked as a critical success factor the previous day was the guidelines; without guidelines on when and how to apply a model, the model would not succeed.

Dr Pegram said an attempt was being made not to retrofit the rules to the institutions. The technical team was not considering bulk and reticulation; someone else was doing so, and it was important to align with that work.

Dr Pegram went through the remaining slides and outlined the options: PPP with Equity, private concession and private development.

Ms Nyembe said that the level at which government would consider transferring ownership of the water resource had been discussed the previous day. Ownership was a critical component and involved more than simply managing the infrastructure. The question had been asked as to the degree to which private participation should be involved.

Mr Ismail said many valid points were being raised, particularly around private ownership. Many countries had private ownership of water. It was an option that had merits and demerits. He hoped for guidelines that would indicate in what circumstances private or public ownership applied best to each of the options presented, to serve as a framework for deciding on an ownership model.

Dr Pegram mentioned that there were already some privately developed dams owned by WUAs.

Mr Knoetze said that there had been several schemes in the past that were privately governed, but in the case of a drought for example, it was unclear where the onus lay for providing assistance. It was important to look carefully at ownership, risks and ultimate responsibility.

The chairperson mentioned an example where Government had gone into partnership with a WUA called Lebalelo. Lebalelo received a discount on the return on asset (ROA) for putting money up front. That was another option to explore – one where the private sector wanted water and had the money for it up front.

Mr Knoetze said that water resources were not privately owned, but belonged to the water users, regardless of entity name, for example, Irrigation Board, WUA or other. Ownership and ultimate responsibility was a complex principle.

Dr Pegram said that many work stream members' comments had implied that if you built and owned the infrastructure (for example, a dam wall) then you owned the water resource. He clarified that water resources fell under the custodianship of the minister. The minister decided how the water resource allocations and operating rules should be applied. The chairperson added that the minister was also the trustee of water resource infrastructure.

Ms Govender commented that similar discussions were taking place in the energy sector; much of it was applicable to water and could be learned from energy. The chairperson requested that Ms Govender's recommendation be explored further.

Action: Technical team

Dr Pegram asked for the details of who to contact in the Department of Energy.

Action: Project management team

Dr Pegram summed up the previous slides as funding options – through equity, debt and others means. The pros and cons of the different options required investigation from governance and financing perspectives, and social, economic and ecological perspectives. An assessment report of the options and recommendations would be created and delivered to the work stream members.

Action: Technical team

8. FINANCIAL MODEL AND ANALYSIS

Dr Pegram said that the reason for constructing the model was not to construct tariff tables at that point; it was to assist the formulation of policy decisions. He said that there was an asset base, a future build and a refurbishment requirement. The question was how the sector would fund those requirements.

Dr Pegram said that to make sound policy decisions, there was a need to obtain information about the sector:

- Financing mechanisms evaluation – different assumptions on financing-institutional options for infrastructure build across the country
- Pricing strategy evaluation – different assumptions for the pricing strategy at scheme, system, basin and national scale
- Project viability assessment – financing and funding viability of new infrastructure, within a broader system and value chain.

Ms Gevers asked whether there was a stance with regard to cross-subsidisation in the model. Dr Pegram replied that there was not; the model was simply identifying the base information required to facilitate answering:

- How to finance water resources
- How to we fund water resources
- How to use the system going forward.

Key issues

- Impact of project vs. balance sheet financing – cost of capital, rollover, cross-subsidisation, etc.
- Impact of a change in cost of capital on a scheme, system or national
- Impact of combined user and grant funding to serve social and regional development imperatives
- Impact on scheme, system or national charge of a change in variable such as O&M cost, cost of capital, return on assets, or institutional costs.
- Impact of a scheme charge versus a system, basin or national charge
- Impact on system charge of introduction of a new scheme.

Dr Pegram presented slides on the elements that should be considered, data collection status, and modules in the financial model:

Current modules:

- Water use (allocation and registration)
- Water resource Infrastructure Asset (value, yield and status)
- Infrastructure Debt (project)
- O&M costs (operational and overhead)
- Fiscal support (grant and subsidy)
- Raw water revenue (billed and recovered)

Future modules:

- Water use projections (allocation and registration)
- Capital requirements (new and refurbishment)
- Potential Debt/Equity (project, scheme, etc.)
- Projected O&M costs (additional)
- Proposed fiscal support (grant and subsidy)
- Required revenue (billed and recovered)

Data issues:

- Serious questions about baseline data
- Assess existing information
- Benchmarking local and international
- Cross-checking information.

Mr Botha said that it was unclear where water resources management charges fit into the model around specific schemes. His interest was in effectively costing the maintenance and restoration of ecological infrastructure in the model.

Dr Pegram said that the model focused on the built infrastructure and did not include the estimation of WRM charges for environmental services and green infrastructure. That scope was outside the brief, but would be included in the discussions on pricing strategy.

Mr Nyandoro said that a key driver of the process should be the sustainable and socially beneficial rate of return. When forecasting future modules, the requirements for ensuring that existing assets were still available in the long term future should be predetermined, such as O&M costs, cost of

capital and others. Mr Nyandoro said it was also necessary to consider the cost of economic regulation over time. On the subject of the rate of return, it was not for National Treasury to determine that rate but the water sector itself.

The chairperson said that the value of data collection needed to be debated. The existing data was not helpful. Consideration of case studies could be more informative.

Dr Pegram replied the last slide on data issues made the same point, but that there was a need to start somewhere, and then to go through each point as a group, and agree, disagree or propose alternatives.

9. CRITICAL SUCCESS FACTORS

Ms Nyembe said that the critical success factors were those elements that were considered essential for the project to progress and succeed. She mentioned the data viability issues that the chairperson had alluded to as a concern. There were also issues that Pegasys had raised in relation to the investment framework; data had been received that now formed the basis of the infrastructural financing component, and it was felt that further validation of that data was required to finalise the investment framework and quantify the cost impacts. From an internal perspective, validation and benchmarking needed to be performed to corroborate assumptions.

10. STAKEHOLDER ENGAGEMENT

Ms Sigwaza had mentioned the need for an internal DWA stakeholder meeting before the end of December 2012. The chairperson asked for assistance from the PMO in the coordination of that meeting and asked whether it could take place in November 2012.

The Inception Report needed to be ready before the end of the financial year for external consultation. Given the magnitude of the verification and validation work required, the chairperson said that the work might not be complete before the report was gazetted.

Ms Sigwaza said that when a report was gazetted for consultation there were 90 days available prior to final submission of the report. It might be sufficient if the assumptions were listed in the report whilst the work continued.

Ms Sigwaza said that the next critical date was the PSC meeting scheduled for 21 November 2012. The meeting was subsequently cancelled.

11. CLOSURE

The chairperson closed the meeting at 13:00.

APPENDIX 1: LIST OF ACRONYMS

Agri SA	Agri South Africa
BOT	Build/own/transfer
CAPEX	Capital expenditure
CFO	Chief Financial Officer
CMA	Catchment Management Agency
DAFF	Department of Agriculture, Forestry and Fisheries
DWA	Department of Water Affairs
GDP	Gross Domestic Product
IRP2010	Integrated Resource Plan for Electricity 2010
MMTS	Mooi-Mgeni Transfer Scheme
NPV	Net present value
NWA	National Water Act
NWRI	National Water Research Institute
NWRS	National Water Research Strategy
O&M	Operations and maintenance
OPEX	Operational expenditure
PERR	Pricing and Economic Regulation Reform project
PFMA	Public Finance Management Act
PMO	Project Management Office
PPP	Public Private Partnership
PSC	Project Steering Committee
ROA	Return on asset
SAAFWUA	South African Association for Water User Associations
SALGA	South African Local Government Association
SANBI	South African National Biodiversity Institute
SANRAL	South African National Roads Agency Limited
SASA	South African Sugar Association
SPV	Special purpose vehicle
TCTA	Trans-Caledon Tunnel Authority
WC/WDM	Water conservation/water demand management
WRC	Water Research Commission
WUA	Water User Association

APPENDIX 2: ACTION ITEMS ARISING FROM THE PERR FUNDING MODEL WORK STREAM MEETING OF 14 November 2012

	Item	Responsible party	Due date (where indicated)
1	A blank column should be added to the action items that were attached to the agenda for meeting attendees to record the item statuses.	PMO	Next meeting
2	The comments register should be completed manually, if not electronically, and circulated amongst members as soon as possible.	PMO	
3	Item 7 from the previous minutes (the PMO would take the matter of funding the proposed change of scope of the project up with the PSC and report back to the work stream) required further discussion that would take place outside of the work stream meeting.	PMO, Chairpersons	
4	The possible addition of a critical success factor: <i>The waste discharge management levy should be privatised as part of the process of transformation of the sector.</i> The matter was open to debate but should be noted in the meantime.	PMO, Technical team	
5	Add the concept of decoupling water from economic growth as an item for further engagement by the work stream members.	PMO, Technical team	
6	Climate change and drought were important issues that should be flagged for consideration by the work stream.	PMO, Technical team	
7	The work stream should provide feedback to the technical team on their thoughts as to the pros and cons of the various approaches and whether the project scope was appropriate.	Work stream	
8	Flag the differences between the electrical model (Eskom) and water models for a future debate.	PMO, Technical team	
9	The impact of institutional arrangements and should be flagged for further discussion	PMO, Technical team	
10	Similar discussions were taking place in the energy sector; much of it was applicable to water and could be learned from energy, and should be explored further.	Technical team	
11	The Project Management Office would provide Pegasys with the relevant contact person's details from the Department of Energy for item 10.	PMO	
12	An assessment report of the model options and recommendations would be created and delivered to the work stream members.	Technical team	
13	The work stream would have to consider how to ensure that water did not constrain development in rural areas in terms of various questions going forward: how infrastructure would be financed, how the pricing strategy would be constructed, and how to put forward the argument to National Treasury for allocation efficiency. The cost of operations and capital would need to be assessed as well as the implications of opting for expensive vs. cheaper water.	Work stream	

	Item	Responsible party	Due date (where indicated)
14	<p>The technical team would take the following suggestions from work stream members into account in their work:</p> <ul style="list-style-type: none"> • The funding models focused on tariffing issues and how to enhance revenue streams, and work had been done on transfers, but possibly a review was needed at the fiscus level of the current subsidies and grants provided by National Treasury for water infrastructure and OPEX. • It was essential to work more closely with National Treasury. • Transformation was a constitutional imperative, and the pricing strategy should consider how to fund infrastructure development. • CMA transfers would also have an impact and needed to be considered in the pricing strategy. • Consideration for environmental taxes was also crucial, as was an audit of what taxes there were, and educating the consumer on the reasons for having them. • Lessons learned from the SASA and E-toll should be incorporated into the project strategy. • National Treasury could consider ways of calculating equitable share by ring-fencing funds. • Current calculations did not take into account O&M costs. A recalculation was important and should be made in-house. • Growth could be achieved through the way water was allocated or by charging different rates for those sectors that used water efficiently. • All aspects of the project needed to be considered in terms of the economic transformation of the water sector. • It was critical to understand the difference between rural and urban economies and build that understanding into the financial model. • It was important to identify at the outset, as part of planning, how to fund the social returns. • It was important when considering the various models to also consider the customers' perceptions of existing models. • The selected model should take the MMTS situation into consideration. • It was important not to lose sight of the regional utilities when devising the models. • Guidelines would be useful that indicated in what circumstances private or public ownership applied best to each of the options in the model. • A key driver of the process should be the sustainable and socially beneficial rate of return. 		