Office of Energy
Government of Western Australia

Our ref: RCM/0476-05
Enquiries: Peter Hawken

Lyndon Rowe
Chairman
Economic Regulation Authority
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197 St George's Terrace
PERTH WA 6000

Dear Lyndon

**WESTERN POWER'S ACCESS ARRANGEMENT**

I understand that the Authority is about to publish its Final Decision on Western Power's proposed Access Arrangement. It has become apparent, however, that aspects of the proposed capital contributions policy can, in some instances, inhibit the prudent enhancement of the network, especially at its extremities, see attached Discussion Paper.

Specifically, enhancements may be inhibited where the party triggering the need for a network enhancement is required to make a large upfront capital contribution for the whole of any uneconomic and/or uncommitted portion of the enhancement. It could be financially impractical for a triggering new user to make this contribution where its supply requirements are much less than the capacity increment that is necessary to provide the required service. This issue has become apparent recently in several locations, including Ravensthorpe, Walpole/Denmark, Bremer Bay and Jurien Bay, and also on a larger scale in areas such as the Midwest, and the Minister for Energy has asked the Office of Energy and Western Power to develop appropriate measures to address the issue.

Consistent with the Minister's request, and following discussions with the Authority, Western Power and the Minister, it is considered that a regional average "headworks charge" mechanism for obtaining capital contributions would present less of a barrier to prudent expansion of the network, whilst still retaining the user pays and locational signals aspects implied in the Code. Therefore, instead of the triggering user funding the whole uneconomic or uncommitted cost, the capital contribution would be spread across all future new users in that network region on an average capital contributions ($/kVA) basis.

The Office has received legal advice that indicates it would be open to the Authority, assuming all other Code requirements were satisfied, to approve such a capital contributions mechanism.

Western Power has provided to me a proposed Extensions and Expansions Policy, which provides for the continuation of current capital contributions policies with regard to such categories as pole to pillar connections, un-metered supplies and subdivisions. I am in the process of considering this policy prior to approving it as per Part 4 of the *Electricity Industry Act 2004*.

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While the Extensions and Expansions Policy could possibly be used to provide for such a "headworks" charge mechanism, this may not sit comfortably with a capital contributions policy under the Code.

I therefore ask that the Authority give consideration to include in its Final Decision a requirement that Western Power's Access Arrangement anticipates the possibility of, and does not obstruct, capital contributions for significant network enhancements being charged to future new users on the basis of a forward looking, averaged $/kVA basis, especially in regional areas at the extremity of the network.

The Office has discussed this matter with Western Power and it is aware of and supports this approach to the Authority.

I do not object if you wish to place this letter and the attached Discussion Paper on your web site.

Should you wish, my staff and I are available to discuss this matter further.

Yours sincerely

JASON BANKS
A/COORDINATOR OF ENERGY

16 January 2007

c.c.: Doug Aberle, Managing Director, Western Power

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**Enhancement of the South West Interconnected Network**
**Discussion Paper**

## Background

- The South West Interconnected Network (SWIN) covers an expansive and, in the main, sparsely populated area. Currently, limited spare capacity is available on many country feeders, especially at extremities of the grid. Also, the rapid growth of the Western Australian economy is causing the timing of large transmission enhancements to be advanced. Significant future investment is required to provide additional capacity and maintain reliability.

- Network infrastructure is by its nature long lived and involves long-term planning and development to ensure continuing reliability of supply and provide understanding and confidence for future investment in facilities reliant on electricity supply. In this regard there is benefit to all relevant users of a network system or sub-system to have prudent planning and development for future needs.

- There is increasing concern that large transmission projects and development in regional areas, especially at the extremities of the grid, may be inhibited where the party triggering the need for a network enhancement is required to make a large upfront capital contribution for the whole of any uneconomic and/or uncommitted portion of the enhancement.

  - It would be financially impractical for a triggering new user to make this contribution where their supply requirements are much less than the capacity increment that is necessary to provide the required service.

  - This issue has become apparent recently in several locations, including Ravensthorpe, Walpole/Denmark, Bremer Bay and Jurien Bay and in the Midwest.

- Alternative means for the funding of these capacity enhancements need to be developed which will present less of a financial barrier, while continuing to adhere to the user pays principle.

- Whilst facilitating beneficial network investments, the policy response needs to ensure prudent planning and development of the network, funding discipline, appropriate sharing of costs and risks and the integrity of the regulatory framework for access.

## Network Planning and Regulation

- Network infrastructure is by its nature long lived and it takes time to consult and obtain approval for new line routes and for this infrastructure to be constructed. Consequently, Western Power has historically always undertaken long range planning to deal with future load growth and updates these plans annually.

- Western Power manages and plans the extension and expansion of the SWIN guided by commercial objectives. While it heeds state or regional development

plans, Western Power is not in a position nor has the mandate to assess social and regional development issues and priorities.

- Its commercial objectives require Western Power to utilise its resources and assets in the most efficient manner and to provide the electricity network infrastructure needs of the South West region, while making reasonable returns on its investments.

- Western Power must adopt a prudent mix of short term and longer term solutions. For example, it will sometimes be more efficient to install a low capital cost peak lopping diesel (or other alternatives) for a period until load growth is sufficient to justify the installation of a longer term and higher capital cost transmission or distribution solution.

- In the past, the investment decision-making process and associated costs were not necessarily transparent and were not subject to independent review.

- Electricity Reform has imposed financial and technical discipline on and review of Western Power's capital expenditure through the *Electricity Network Access Code 2004* (the Code). This is instigated through the Code's various investment tests and vetting by the independent Economic Regulation Authority to enable Western Power to receive a commercial return on its investments.

- There are two investment tests under the Code that major augmentations must pass - the Regulatory Test and the New Facilities Investment Test (New Facilities Test).

- The objective of the Regulatory Test (major augmentations only) is to ensure that the net benefit for network users is maximised after considering alternative means to provide electricity supply (eg transmission line investment, demand management, use of renewable energy or local generation) into the future. The test is applied before a major investment can proceed.

- The New Facilities Test (all augmentations) determines the economics of the proposed investment. The test requires that the cost of the investment is minimised (no gold plating or excessive profits) and that the investment at least meets the following:
  - pays for itself (i.e. through incremental access charges recovering the cost of the investment); or
  - provides a net benefit to generators, network owner and consumers to justify higher access tariffs to enable recovery of the investment; or
  - is necessary to maintain safety or reliability or the network's ability to provide contracted covered services.

- The Code also provides for capital contributions for that part of the investment that does not meet the New Facilities Test.

**Proposed Policy Response on Capital Contributions**

- Major augmentations of the network (at transmission level and major distribution enhancements), particularly those that clearly are not for the sole use of a single development, affect a wider set of access users or potential users.
  - A major transmission development that delivers new generation to the South West Interconnected System, and not just electricity supply to a region, potentially benefits existing and future customers in the region and the whole network.
  - Major augmentations to increase capacity to meet increasing development and electricity demand in regional townships and surrounding areas are likely to benefit the relevant regional area.
  - In some cases these augmentations, in whole or part, may not pass the Code's New Facilities Test and consequently would require capital contributions from future users who will benefit from these enhancements.

- To provide for transparency of development costs and present less of a barrier to prudent augmentation of the network, while at the same time meeting the user pays principle and providing locational signals, the proposed policy response is for a regional average capital contribution ("headwork charge") to provide for prudent network augmentation on a regional basis.
  - Therefore, instead of the triggering user funding the whole uneconomic and/or uncommitted cost, the capital contribution would be spread across all future new users in that network region on an average capital contributions ($/kVA) basis.

- This new capital contribution arrangement should be akin to a "headwork charge" determined as follows:
  - prudent and reasonable planning for load growth over a reasonable period of time;
  - determining the capital investment required to meet the load projection taking into account the requirements of the Code's Regulatory Test;
  - assessing the capital costs that would not pass the Code's New Facilities Test;
  - calculating an average charge (taking into account the time value of money and appropriate return) to spread across future users of the new investment the capital cost that will not pass the New Facilities Test; and
  - sharing the risk of system planning and development in the relevant regional areas.

**Proposed New Capital Contribution Methodology – "Headworks Charge"**

- The determination and implementation of the "headworks charge" will involve a robust planning process that is independently vetted, considers alternative solutions not just transmission/distribution lines, shares capital contributions and risks according to the benefits obtained and maintains the integrity of the access regulatory regime. It is proposed that it will involve the following matters (aspects of the proposal needs further consideration and as such not final at this point in time).

- The headwork charge arrangement will continue to recognise that different areas of the network impose different costs for enhancement or operation. As full cost reflectivity at each point in the network is not feasible or practical, appropriate grouping or regionalisation that recognises the beneficiaries of the investment will be used in determining the average headworks charge.

- Long-term planning by Western Power over a reasonable period of time will be undertaken in accordance with the Regulatory Test of the Code to establish reasonable market development scenario and demand growth in relevant areas and the augmentation programme that maximises the net benefit considering alternative options.

- The long-term planning and determination of headworks charges will be vetted by the Economic Regulation Authority (the "Authority") in accordance with the Code.

- Allocation of the major augmentation capital cost not meeting the New Facilities Test to long-term new demand that reflects proportional use.
  - This will involve a net present value calculation of the cost of the augmentation programme and new demand to determine an average headworks charge (on a $/kVA basis), with a reasonable rate of return as provided for in the Code .

- Reviews and adjustments of the headworks charge at regular intervals ("headworks period"), or timed in accordance with reviews or resets of the Access Arrangement.
  - Reviews and adjustments may also be triggered by significant new load arising in an area. The Authority may also trigger a review in such a situation.
  - Western Power will produce annual updated long-term plans, based on approved forecasts and submit these to the Authority.
  - Reviews of the headworks charge should not trigger a review of the entire access arrangement.

- Approved capital investment during the headworks period is to be rolled in to the capital asset base as it occurs and be used for determining the access prices in accordance with the Code.

- Headworks charges are to be deducted from allowable revenue in the year they are received or in accordance with a timing approved by the Authority that meets the capital contribution policy objectives and relevant price control objectives of the Code.

- The forward looking headworks charges determined for particular areas of the network will provide a transparent indication of the infrastructure costs that have to be met by future developments in that area. This will enhance economic decision-making for particular projects.

- The transparency of future infrastructure costs will also guide and enhance regional and social development planning and decision-making, which is a totally separate process from the determination of the cost of future electricity infrastructure to be incurred by new loads/developments as embodied in the headworks charge.

- Regional and social development planning and decision-making is a broader matter for Government. These are not factors that would be considered by Western Power or the Authority in the determination of a headworks charge.

- In some cases, where regional or social development or other rationale justified it, the Government could choose to provide separate funding to reduce the headworks charge in a locality or to certain types or classes of customers. In these cases the Government would need to consider the merits of each development and assess them against other priorities. In all cases Western Power would recover its full costs.

**Way Forward**

- It is considered that the Western Power's Access Arrangement should provide for headworks charges through its capital contributions policy.

- The Office of Energy has obtained legal advice that, subject to the other Code requirements being met, it would be open to the Authority to approve such a policy.

- The Office of Energy has discussed the headworks charge concept with Western Power which supports such an initiative.

- The Authority has been asked to consider making a Final Decision on Western Power's proposed Access Arrangement that contemplates the use of a capital contributions policy that accommodates a headworks charge approach.

- Any Code amendments, identified through development of a response to the Authority's Final Decision, will be considered by the Office of Energy and, if appropriate, recommendations made to the Minister for Energy.

OFFICE OF ENERGY

16 January 2007