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Dr John Tamblyn  
Chairman  
Australian Energy Market Commission  
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SYDNEY SOUTH NSW 1235

Dear John

### VENCORP RESPONSE ON THE AEMC ISSUES PAPER FOR THE NATIONAL TRANSMISSION PLANNING ARRANGEMENTS

VENCORP welcomes the opportunity to make a submission on the Australian Energy Market Commission's (AEMC) Issues Paper, regarding the implementation arrangements for the proposed national electricity transmission planning function to be undertaken by the new Australian Energy Market Operator (AEMO).

The attached submission sets out our thoughts on the matters raised by the AEMC.

Consistent with the Ministerial Council on Energy's (MCE) desire that the planning function be an *'enhanced planning process'* compared with the current planning process, VENCORP believes that AEMC's review should primarily focus on:

- How it will facilitate the AEMO undertaking national transmission network planning; and
- What information the AEMO requires to perform this role.

To meet the MCE's requirements, AEMO's national transmission planning function must be:

- Broader than the existing Annual National Transmission Statement (ANTS) planning process thus, by definition it must consider more than planning national transmission flow paths;
- Conducted independently of the asset owners, thereby requiring all necessary asset information from the asset owners to be provided to AEMO; and
- Allowed to evolve over time, in response to the needs of the market and therefore cannot be constrained by artificial definitional constructs such as 'interconnectors' or 'flow paths'.

To this end, AEMO's national transmission planning function needs to be designed around the following principles and/or objectives:



- For economic efficiency, transmission investment must be focused on the needs of the market, the customers and potential investors in generation capacity and major loads;
- In designing the national transmission planning arrangements, the interests of TNSPs themselves must be regarded as secondary to those of market participants and potential investors;
- The MCE and COAG have decided the change must be one of substance, not one of appearance, nor minor fine tuning;
- The national transmission planning function must be independent of market participants, investors, and transmission asset owners, who naturally have a primary interest in their own territory and asset inventory and can not be reasonably expected to place the national interest ahead of their own;
- The transmission network must behave as a seamless single network and individual assets or classes of assets cannot be identified with national benefit as distinct from local benefit;
- The national transmission planning function should be based on agreed guiding principles, rather than prescriptive distinctions between physical assets or locations; and
- Network planning involves architecture and topology as well as a project by project justification and these broader, longer term aspects must be incorporated into the national transmission planning design.

On the governance arrangements for the national transmission planning function, these have been dealt with by the Ministerial Council on Energy (MCE) and therefore it is arguable that the AEMC is going beyond its scope to consider this matter in its review.

Should you have any questions on anything contained within the submission please do not hesitate to contact myself on (03) 8664 6545 or Louis Tirpcou on (03) 8664 6615.

Yours sincerely

A handwritten signature in blue ink that reads "M. Zema".

Matt Zema  
**Chief Executive Officer**  
Att.

## Introduction

On 9 November 2007, the AEMC published an Issues Paper seeking comments on the scope developing a detailed implementation plan for the national electricity transmission planning function, including the most appropriate legislative amendments and National Electricity Rules (NER).

These changes are designed to implement Council of Australian Governments' (COAG) response to Energy Reform Implementation Group's (ERIG) transmission planning recommendations.

It is noted that the AEMC has been directed by the Ministerial Council on Energy (MCE) to:<sup>1</sup>

Conduct a review into the development of a detailed implementation plan for the national electricity transmission planning function [within NEMO], including the most appropriate legislative amendments and Rule-changes to implement COAG's response to ERIG's Electricity Transmission and Planning Recommendations ... The AEMC's advice must be consistent with COAG's response.

VENCorp performs a number of key roles and functions in the national energy market and therefore has a unique insight into the workings and operations of both electricity and gas markets (the energy market) including:

- Planning and procuring the Victorian electricity transmission network;
- Planning the Victorian gas transmission network;
- Operating the Victorian wholesale gas market and system;
- Supporting the wholesale and retail gas markets in South Australia and Western Australia; and
- Administering the retail gas markets in Queensland and Victoria.

VENCorp's submission focuses on two key elements of this review, namely:

- The governance arrangements of the national transmission planning function; and
- How the MCE desire that the planning function be an '*enhanced planning process*', can be achieved.

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<sup>1</sup> The AEMC has also been directed to conduct a review into reliability standards, but this is the subject of a separate consultation process.

## Governance Arrangements

The National Transmission Planning Function is only one of a number of AEMO functions.

The AEMC is going beyond its scope in considering governance arrangements for this single AEMO function.

The AEMC has outlined four proposed governance arrangements to deal with AEMO's national transmission planning function. These include:

- An administrative body within AEMO reporting to (and appointed by) the AEMO board;
- Defined (ring fenced) Board/Panel/Committee within AEMO with independence;
- Defined Board/Panel/Committee or Defined Office Holder (ring fenced) within the AEMO with independence; or
- Statutory authority or office holder – appointed through process specified in enabling legislation.

It is unclear why the AEMC is considering the governance arrangements of this function given that COAG has agreed that it will be performed by the AEMO. To argue for separate governance arrangements, either in substance or in form, is contrary to COAG's intention to *'strengthen the national character of energy market governance through the creation of a single energy market operator'*.

The AEMO will be undertaking a number of functions, above those of national transmission planning, including:

- All the functions currently performed by NEMMCO;
- All the gas functions recommended by the Gas Market Leaders Group (GMLG) for a Gas Market Operator (GMO), including:
  - The functions of the Gas Market Company (GMC), Retail Energy Market Company (REMCo) and VENC Corp;
  - Preparation of the Bulletin Board and Short Term Trading Market;
  - Information gathering in support of the National Gas Emergency Response Advisory Committee (NGERAC) during gas emergencies; and
  - Preparation of an annual gas statement of opportunities.

The MCE established a clear process for determining the governance of the AEMO with the full knowledge that it would be undertaking the national transmission planning function. The implementation plan was endorsed by the MCE on 13 December 2007. Therefore, it is

arguable that the AEMC is going beyond its scope to recommend separate governance arrangements for this single AEMO function.

Separation of the governance arrangements for the national transmission planning function from the AEMO's other functions, would be an inefficient outcome and would not satisfy either the NEM or gas market objectives.

VENCorp does not believe that the AEMO would legally be able to devolve any of its decision making authority to an alternative Board, Panel or Sub-committee. Whether the AEMO chooses to establish a forum involving market participants and asset owners to inform its decision making would be entirely within the AEMO's purview.

If the AEMC believes the planning needs to be separated from the AEMO's other functions, then it must also be suggesting that TNSPs separate their planning activities from their other functions.

The only arguments that could be made against the national transmission planning function being located within the AEMO are that:

- There may be a conflict of interest in the roles (as investment can be done to hide bad operating decisions, and vice versa); and
- There may be pressures for staff to be devoted to one task to the detriment of the other.

The latter argument is a resourcing issue and is fixed by appointing competent management (starting with a competent Chair and Board, who in turn appoints a competent CEO, etc).

Regarding the conflict of interest:

- What is phrased as a conflict of interest is in reality a trade-off that needs to be managed, it is assumed that the AEMO will be structured to make an appropriate decision on such trade-offs (i.e. being structured as a public good decision maker rather than a for-profit entity);
- The AEMC has given no weight to the problem of maintaining critical mass – which will not be possible in an entity that is restricted to the initial national transmission planning role; and
- In all of the international examples in the Brattle Report, the independent planner was the operator and there was no discussion of conflicts of interest. We can infer from this that it is not an issue.

There is also substantial discussion in the chapter about the need for the national transmission planning function to be independent (with it being explicitly or implicitly independent of market participants).

However, the same issue holds for the AEMO in its market/system operator role. It will be scheduling plants, determining spot prices, deciding on security constraints, making directions etc – all of which has large commercial implications for market participants. If it is not

independent enough for the national transmission planning role, then it never will be for the operator role.

## Fragmented Planning – Current Issues in the NEM

Private individuals are not best placed to act in the public interest.

No single entity is responsible for consideration of the most efficient national outcomes for the transmission system.

Transmission Network Service Provider (TNSP) accountability is questionable given the disconnect between planning obligations and the revenue setting regime.

### *COAG's objectives*

VENCorp reiterates from its submission on the scoping paper that the AEMC needs to consider a clear view of the objectives of the transmission planning reforms that COAG have agreed to, and ensure that the implementation plan to meet those objectives is appropriate.

VENCorp believes that it is clear that COAG intends the new planning functions to represent a material improvement, and hence a material change, to the current planning arrangements, with COAG noting that:<sup>2</sup>

COAG has agreed to establish an *enhanced planning process* [emphasis added] for the national electricity transmission network to ensure a more strategic and nationally coordinated approach to transmission network development, providing guidance to private and public investors to help optimise investment between transmission and generation across the power system.

COAG's considerations in this regard were informed by the Energy Reform Implementation Group's (ERIG) recommendations and findings, which documented a number of concerns with the current planning arrangements. A key concern to ERIG was that a number of factors combine, to limit the likelihood that the transmission network will be developed on an efficient, national basis, namely:

- The tendency for the TNSPs to focus on the impacts only within their own networks by adopting an overly restrictive definition of what is a material inter-network effect (pp.172-175), with ERIG noting its consultant's advice that not all augmentations will be mutually beneficial to adjoining TNSPs (pp.175-176);
- That the combination of mandated reliability obligations applying to many TNSPs and the circumscribed process that exists at present under the regulatory test for reliability augmentations has provided an incentive for such TNSPs to focus on reliability-only projects, to the exclusion of so-called 'market benefit' projects or even enhancements to reliability projects that may meet the relevant minimum reliability requirement but also deliver other market benefits that justify a higher cost; and
- The absence of clear accountabilities on any party to plan and develop new interconnectors since that role was taken from the Inter Regional Planning Committee

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<sup>2</sup> COAG Communique, Attachment A.

(IRPC) as a result of the Network and Distributed Resources code changes of March 2002.

A second concern noted by ERIG was that the lack, or perceived lack, of transparency in planning and planning decisions in many jurisdictions were creating uncertainty for investors in the competitive sector, which may stifle investment. It observed:<sup>3</sup>

As noted in the discussion on the Regulatory Test (above), TRUenergy considers that commercial certainty is undermined when the transmission planner is not independent of asset ownership and/or may not be seen as fully independent (TRUenergy 2006).

Snowy Hydro is of the opinion that separation of the transmission planning function from transmission asset ownership and control would deliver market benefits through increased quality and transparency of the information that forms the basis on which investors make investment decisions. In its submission to ERIG, Snowy Hydro expressed the view that information asymmetry between TNSPs and the rest of the market exacerbates this risk.

ERIG agrees that there is a conflict of interest issue where the proponent of a project is also responsible for project assessment and the application of the Regulatory Test. This is compounded where the planning criteria applied to the project are open to a variety of interpretations, the data to analyse the project is not fully available to the market and there is limited specialist expertise to make an independent assessment.

ERIG's concern about the perception of a conflict of interest in transmission decisions was particularly strong where the relevant TNSP and generators were owned by the same government (p.169-170).

Clearly, ERIG did not consider the existing Annual National Transmission Statement (ANTS) process as undertaken by NEMMCO to remedy these concerns. It observed that NEMMCO is heavily reliant upon information from the TNSP Annual Planning Reports to produce the ANTS (p.148). The key change to existing arrangements envisaged by ERIG (and COAG) is that the degree of planning activities that would be undertaken by the national planner (AEMO) would increase substantially compared to the current model, and hence create the environment of transparency and accountability sought:<sup>4</sup>

In addition to the independent and transparent provision of information, the [National Transmission Planner] model would strengthen national co-ordination through allocating a broader set of responsibilities and resources to the National Transmission Planner.

...

Allocating responsibility for actually undertaking network analysis and planning in the development of the longer term plan will increase the resources required by the National Transmission Planner when compared to the coordination role in the modified status quo discussed above. It will, however, ensure a clear focus on integrating national network development and remove any difference in the assessment of intra- versus inter-regional investment and investment aimed at providing reliability versus market benefits. This body would also have the capability to provide a credible, independent source of advice to the market and the regulatory regime.

More specifically, fundamental to the reforms are that the AEMO would have the necessary information and resources to undertake its own independent network studies. This would identify future augmentation options independently (albeit subject to consultation requirements), and hence create an environment where the TNSP's planning decisions are open to public scrutiny. This end point has implications for how the functions of the AEMO are

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<sup>3</sup> ERIG, p.169.

<sup>4</sup> ERIG, pp.191-192.



defined, the ability or power for the AEMO to gain the information that it requires and the resources necessary to complete the task.

While the extensive discussion on the functions of the national transmission planning function emphasises the benefits from having a *national* entity with a planning responsibility, VENCORP believes that emphasis also needs to be given to having an *independent* entity with national planning responsibilities.

ERIG's recommendations for the planning reforms were intended to address both the potential for the nationwide grid to be developed on a national basis and to overcome market participants' concerns about the potential for uncertainty where the planning entity was also the asset owner.

### *The revenue regime and TNSP obligations*

In the AEMC's issues paper it portrays the process under which network augmentation is planned and undertaken, as central to ensuring that TNSPs are accountable through the incentive regime:<sup>5 6</sup>

the form of regulation applied to TNSPs in the NEM is a building-block, incentive-based regime, in which TNSPs are rewarded for making efficient capital investments through the provision of a regulated return. Without such incentives, TNSPs cannot be expected voluntarily to identify and develop augmentation options that could increase transmission capability and help reduce the incidence of congestion.

It is not correct to say that the current regulatory regime is one '*in which asset owners are rewarded for making efficient capital investments*'. Rather the incentive properties in the current regime can be summarised as follows:

- Revenue regulation (excluding contingent projects) - The operation of the revenue cap provides a disincentive for any investment in the early years of the cap. Accordingly, the incentive for the TNSP is to only spend where required by a mandatory obligation (e.g. a reliability obligation) and to not spend more than the minimum required (e.g. to undertake an enhanced project that is justified by the market benefits). In the years immediately prior to the next revenue cap review, the TNSP faces little financial penalty from investing, and hence has a financial incentive to invest – but no financial incentive to select optimal projects.<sup>7</sup> Indeed, if the regulatory return is higher than the true weighted average cost of capital, then TNSPs will have an incentive to build more, irrespective of whether the projects are efficient.
- Revenue regulation (contingent projects) - The contingent project scheme provides the TNSP with compensation for the cost of undertaking the project immediately, and hence the TNSP will have an incentive to undertake that project. However, the TNSP does not have an incentive to build the project when it is efficient; but rather has an incentive to build the project as soon as the AER can be convinced that the trigger event for the contingent project has been passed.

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<sup>5</sup> AEMC, Issues Paper, figure 2.2, p.13.

<sup>6</sup> AEMC, Op. Cit., p.12.

<sup>7</sup> Note that there is no capacity for the AER to undertake an ex post prudence review.

- Performance incentive scheme - To date, the measures of performance that have been included in the performance incentive scheme have provided incentives mainly to operational decisions (such as the timing of network outages for maintenance or new constructions) and not investment decisions.

Thus, there are no financial incentives on the TNSPs to build efficient transmission. The reason for this is that the design of an optimal scheme is very difficult arising from the interrelationships between networks and lumpiness of transmission assets. The absence of perfect, or even approximate, incentives to invest efficiently is the justification for requiring the TNSPs to adopt a 'public interest' role when determining whether investment projects should proceed. In the recent review of the regulatory test principles within the NER amendments the AEMC itself acknowledged the difficulty associated with having these bodies play this role.

Further, TNSP's obligations to maintain a safe and reliable network are set out in Chapter 5 of the NER, whilst the revenue setting arrangements are set out in Chapter 6. There is very little cross referencing between the two chapters. Unless this is recognised, it is inconceivable that the revenue regime will drive the necessary national investment.

Once it is recognised that the revenue regulation regime does not provide TNSPs with clear financial incentives to act efficiently or link performance to accountability; and the TNSPs' obligations to plan efficiently are difficult to enforce, it becomes clear that there are significant advantages to having an independent entity that can increase the degree of oversight over the TNSPs planning decisions, rather than just to facilitate national coordination.

## Achieving an *'enhanced national planning'* process

AEMO's national transmission planning function must be:

Broader than the existing Annual National Transmission Statement (ANTS) planning process so by definition it must consider more than national transmission flow paths;

Conducted independently of the asset owners thereby requiring all necessary asset information from the asset owners to be provided to the AEMO; and

Allowed to evolve over time in response to the needs of the market and therefore cannot be constrained by artificial definitional constructs such as 'interconnectors' or 'flow paths'.

### *Defining National Transmission Planning*

As the AEMC's Issues Paper has highlighted, there are a number of issues that need to be addressed when designing a national transmission planning function to meet the deficiencies identified in the previous section. These are:

- The detailed specification of the relative roles of the AEMO and the TNSPs when developing the National Transmission Network Development Plan (the Plan), including the classes of projects and/or parts of the network that are to be covered in the Plan;
- The information that the AEMO will require when undertaking such analysis, the information gathering powers and processes that may be required; and
- What functions ancillary to the AEMO's planning activities would it be appropriate for the AEMO to perform?

To help address this question, it is worth putting the transmission planning role in some context. Transmission planning is not simply a matter of a project by project assessment to address the reliability and competitive needs of the system. It is the long term architecture of how the network meets the needs of the users integrated with asset refurbishment, replacement, distribution network connections and with the increasingly integrated energy market, gas transmission network investment.

To have the AEMO simply produce a document similar to VENCORP's Vision 2030 alone would be insufficient to address the markets needs. However, having the AEMO prepare a document comparable to Vision 2030, alongside an Annual Planning Report, technical documents and guidelines on the how the system could be used by the market (e.g. VENCORP's 'Capacity of the Victorian Electricity Transmission Network to Integrate Wind Power'), would go a considerable way towards achieving an *'enhanced national planning'* process.

The AEMC has identified the functions of the AEMO as the key areas upon which it is seeking comment, and its questions are broken down into three broad headings:

- Which parts of the transmission network (and other industries) should the national transmission planning function cover;
- For the parts of the network that are within the AEMO's area of responsibility, to what level of detail should the final Plan be pitched; and
- Are there other functions that usefully could be performed by the AEMO?

These three matters are considered in turn.

### ***Beyond National Transmission Flow Paths***

A principal conclusion of the AEMC appears to be that the AEMO's planning function should be limited to assets that have 'national significance'. All other assets would be reserved to be planned by the relevant TNSP with no involvement of the AEMO:<sup>8</sup>

This distinction between 'national' and 'regional' planning provides clear guidance that the NTNDP will not cover all transmission planning issues, but rather a sub-set of planning issues relating to elements of the network which have national significance.

The MCE direction to the AEMC that is referred to above stated as follows:

the new arrangements will be designed to provide an appropriate balance between the delivery of a co-ordinated and efficient national transmission grid and local and regional reliability and planning requirements

VENCorp believes that there is no reason to read the MCE's prescription as narrowly as the AEMC has. To exclude the interrelationship between the elements of network planning, defined above, would indicate a lack of understanding on how planning is conducted. Rather, the MCE's desire for retaining a sufficient focus on regional issues could be met by ensuring that the AEMO is sufficiently resourced to be cognisant of regional or local issues such as having an office in each state. It is also noted that a number of elements of the proposed arrangements will ensure that local and regional requirements are taken into account, including:

- The potential for reliability standards to differ across jurisdictions, regions or network types; and
- The fact that the local TNSP will remain as the decision maker in relation to transmission investments.

In short, there appears to be little to no downside from permitting the AEMO's planning function to extend into regional matters with some considerable upside. Namely, avoiding the need to define precisely the border of the AEMO's planning responsibilities and to increasing the degree of oversight intrastate planning.

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<sup>8</sup> AEMC, Op. Cit., p.19.

Further, COAG has made it clear that in addition to an enhanced planning process the information provided by the AEMO must be useful for the AER and TNSPs, when stating:

These arrangements are intended to assist transmission companies, when undertaking planning and putting forward their revenue proposals to the AER, to demonstrate that projects are aligned with the NTNDP. In turn, the AER will have regard to the NTNDP and the advice of the National Transmission Planner when making revenue determinations. The NTNDP will not bind the AER in its consideration of the revenue requirements of the TNSPs.

This raises the question of how the AEMO and the AER should relate to each other during a revenue cap reset.

While it is clearly acknowledged that the AER would not be bound to take the AEMO's advice, and TNSPs would be allowed to produce contrary argument or evidence, the fact remains that the AEMO will be independent and had appropriate expertise means that the AER would be justified in giving a substantial weight to its conclusions.

This is obvious from the way that the AER treats information supplied by the Electricity Supply Industry Planning Council (ESIPC) of South Australia for ElectraNet's revenue reset and VENCORP's information supplied to the ACCC in relation to the GasNet Access Arrangement. The AER and ACCC places significant weight on the information provided by these bodies because they are independent.

To date the AER appears to have placed little, if any, weight on any information provided in the ANTS when assessing individual TNSP revenue caps. Therefore, for the Plan to be of use to the AER and meet COAG's objectives, it must consider matters beyond the existing ANTS planning process. Therefore, by definition it must be broader than national transmission flow paths.

### *Independent Planning*

The AEMC has accepted that the MCE's decision requires the activities performed by the AEMO to extend beyond the current planning functions of the IRPC and NEMMCO (ANTS).<sup>9</sup> VENCORP believes that the key change in the new planning arrangements should be the extent to which the AEMO is able to act independently of the asset owners. The '*added value*' from having the AEMO more involved in the planning process therefore will be:

- Additional oversight of the TNSPs' planning decisions, thereby enhancing the quality of that planning and increasing the confidence of market participants;
- Greater assurance that the planning process considers all feasible alternative projects and considers the NEM-wide impact, regardless of where the project is located or the effects felt; and
- Pressure for greater consistency of planning across the NEM, minimising planning-related distortions to locational and operating decisions.

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<sup>9</sup> AEMC, Op. Cit., p.23.

To enable this, the AEMO must be able to perform its tasks independently of the TNSPs thereby requiring all necessary asset information from the asset owners to be provided to the AEMO. It cannot be reliant on the TNSPs for critical modelling or judgments. In turn, this will also increase the AER's ability to rely on the information supplied for revenue cap purposes.

### *Evolution of the Plan*

A sensible means of defining the scope of the Plan would be to leave it to the judgement of the AEMO based upon a consideration of the significance of the matter in terms of potential cost and benefit and the AEMO's resources. That is, not to prescribe a threshold '*clearly and unambiguously*' in the NER or NEL as the AEMC has suggested.

In essence, it should be allowed to evolve over time in response to the needs of all market participants and should not be constrained by artificial definitional constructs, such as 'interconnectors' or 'flow paths'.

However, if the transmission network must be separated into 'national' and 'regional' components and the AEMO's role is restricted to dealing with national matters, then it is important to recognise that the overview of planning within a region by an independent nationally focused planner could materially advance economic efficiency and hence the NEM objective, even if interconnector flows are not affected, for example by:

- Encouraging efficient intra-jurisdictional transmission investment, thus improving the efficiency of use of the nation's scarce resources;
- Minimising the scope for differences in the planning approach across regions to artificially alter the locational or operating decisions of generators and customers, and hence promoting decisions from network users that are efficient from a national perspective; and
- Providing market participants with greater confidence in TNSPs' planning decisions, including predictability of those decisions, thus enhancing the liquidity of financial markets.

As noted above, the argument for having an independent planning entity is not limited to cases where there is a benefit or cost in another state that may be ignored by a TNSP, but extends to remedying the lack of incentives on TNSPs to plan appropriately *within jurisdictions*. Moreover, it is clearly the case that locational decisions of generators and customers across the NEM can be a function of flows within a jurisdiction as well as across borders, and hence creating a '*level playing field*' of intrastate planning decisions across the NEM, thus it will be critical to promoting economic efficiency.

These considerations argue for the AEMO exercising its planning functions at least for assets that contribute to flow-paths between generation and load centres across the entire NEM.

Again, there would appear to be little benefit in attempting to put a precise definition of the scope of the Plan in the NER. Rather, it would be better to specify a set of principles, allowing the AEMO to make the judgment, noting that it should be established to be suitable for making 'public good' decisions.

### *Principles and objectives of the national transmission planning*

Following on from above VENCORP believes that AEMO's national transmission planning function needs to be designed around the following principles and/or objectives:

- For economic efficiency, transmission investment must be focused on the needs of the market, the customers and potential investors in generation capacity and major loads;
- In designing the national transmission planning arrangements, the interests of TNSPs themselves must be regarded as secondary to those of market participants and potential investors;
- The MCE and COAG have decided the change must be one of substance, not one of appearance, nor minor fine tuning;
- The national transmission planning function must be independent of market participants, investors, and transmission asset owners, who naturally have a primary interest in their own territory and asset inventory and can not be reasonably expected to place the national interest ahead of their own;
- The transmission network must behave as a seamless single network and individual assets or classes of assets cannot be identified with national benefit as distinct from local benefit;
- The national transmission planning function should be based on agreed guiding principles, rather than prescriptive distinctions between physical assets or locations; and
- Network planning involves architecture and topology as well as a project by project justification and these broader, longer term aspects must be incorporated into the national transmission planning design.

Ten years experience with the NEM has demonstrated that the current arrangements are clearly not meeting the needs of the market. This was recognised in the Parer review and by ERIG.

### *Other matters*

#### *Planning beyond electricity transmission*

It would seem appropriate for the Plan to combine the new planning-related activities for the gas industry and incorporate the other current planning outputs for the electricity industry.

The main purposes of the Plan will be to ensure that there is an entity that is planning monopoly infrastructure in an integrated manner, and to provide participants in the competitive markets with information that will assist their decision making.

The AEMC has also asked whether Network Control Ancillary Services (NCAS) should be covered in the plan. Given that NCAS can be provided by monopoly networks as well as

competitive participants, it is important that the efficiency of monopoly provision be evaluated as part of the planning process and undertaken, if it is the most economic option.

#### *'Main grid' vs. other options*

The AEMC has asked in effect whether the Plan should cover augmentations only or also include renewals, and whether it should be restricted to the 'main grid' or also cover connection assets.

Regarding refurbishment of the main grid, the AEMO would need to consider the inter-relationship between major refurbishment given that a question for an asset replacement is whether the replacement should be of the same capacity.

Regarding connections, only distribution connections are part of prescribes services and 'planned' (the remainder being negotiated and customer-driven), which is currently coordinated with distributors. More thought is required about whether the AEMO should have any role in relation to distribution connections.

#### *Role of the IRPC*

The AEMC has asked specific questions about how the IRPC functions can be incorporated into the new planning process including whether the TNSPs will still need to contribute to the IRPC's activities and whether there are other functions that should be transferred.

Clearly, with the creation of an independent entity with planning expertise, there will no longer be a need for the IRPC.