

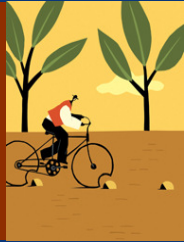
# Renewable Energy Generation Works Package

REGWG Program Briefing  
28<sup>th</sup> August 2009

TENET  
CONSULTING

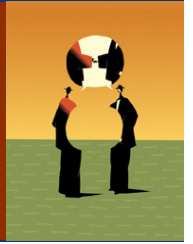
in alliance with NAVIGANT  
CONSULTING

# Agenda



- Introduction
- Program overview
- Works package scope review
- Packaging & staging
- Program schedule
- Next Steps

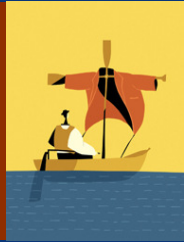
# Program Overview



- SKM study identified four separate work packages:
  - Work Package 1: Impacts from State and National Policy
  - Work Package 2: Capacity & Reliability Impacts
  - Work Package 3: Frequency Control Services
  - Work Package 4: Technical Rules
- Tenet Consulting engaged to manage tender preparation and delivery of the work program.

# Review Work Scope – Package 1

## Impacts of State & National Policy

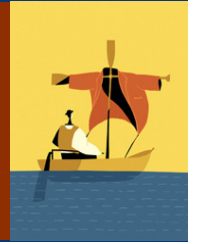


- **Aims**

- To identify existing policies or regulations that may act as an impediment to intermittent generators or dispatchable renewable energy generators locating in the SWIS.
- To identify and provide strategies to address impediments to increased penetration of intermittent generators or dispatchable renewable energy generators in the SWIS, resulting from existing or proposed State and Federal Government policies or regulations.
- To determine the likely scenarios for the generation mix in the SWIS as a result of State and Federal Government policies.

# Review Work Scope – Package 1

## Impacts of State and National Policy



- **Deliverables**

- A model of the projected generation mix in the SWIS to 2030, detailing all relevant assumptions.
- Various scenarios modelled to 2030, for the projected capacity of intermittent generators, dispatchable renewable energy generators, and overall generation mix in the SWIS resulting from existing and proposed policies and regulations.
- Strategies for Government to address policy and other impediments to increased penetration of intermittent generators or dispatchable renewable energy generators in the SWIS, as a result of existing and proposed State and Federal Government policies and regulations.
- Recommendations for Market Rule changes arising from the analysis.

# Review Work Scope – Package 2 Capacity and Reliability Impacts



- **Aims**

- To determine the contribution made by intermittent generators to system security and capacity.
- To identify any changes required to the required levels of reserve capacity resulting from increased penetration of intermittent generators in the SWIS.
- To identify any changes required to the RCM procurement process resulting from the above analysis.
- To identify any additional costs and resulting charges, required as a result of increased penetration of intermittent generators in the SWIS.

# Review Work Scope – Package 2 Capacity and Reliability Impacts



- **Deliverables**

- Recommendations on appropriate methodologies for the assessment of the capacity contribution made by Intermittent Generators.
- Recommendations on revisions to the current capacity certification process for Intermittent Generators to reflect the identified capacity assessment methodologies.
- Recommendations on the procurement process for reserve capacity and the methodology for allocation of costs.
- Recommendations for Market Rule changes resulting from this analysis.

# Review Work Scope – Package 3 Frequency Control Services



- **Aims**

- To determine whether existing spinning reserve, load following and demand response criteria in the SWIS are adequate for the forecast levels of intermittent generation, and the projected scenarios for the overall generation mix. The scenarios and penetration levels at which additional services are required will be identified.
- To determine whether intermittent generators can be used to provide the frequency control services required.
- To determine the costs and the method of allocation of these costs associated with the provision of frequency control services for the forecast penetration levels of intermittent generation.



# Review Work Scope – Package 3 Frequency Control Services

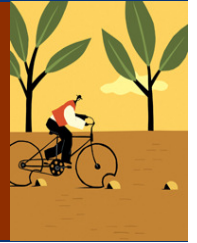


- **Deliverables**

- A summary of the optimum level and response criteria of each frequency control service identified for the forecast levels of intermittent generation.
- A summary of the costs associated with the provision of frequency control services for the forecast levels of intermittent generation, and recommendations on the method for allocation of these costs to participants.
- Recommendations for Market Rule changes resulting from this analysis.
- Recommendations for Technical Rules changes resulting from this analysis.

# Review Work Scope – Package 4

## Technical Rules



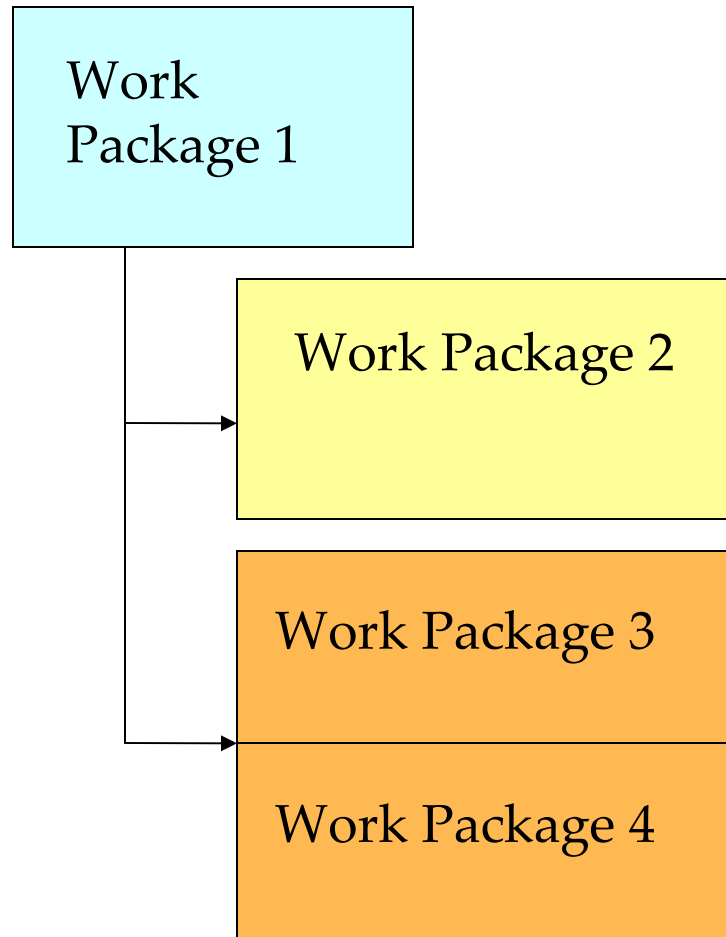
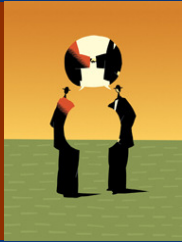
- **Aims**

- To evaluate the appropriateness of the current Technical Rules as applied to intermittent generators, and recommend changes resulting from increased penetration of intermittent generators in the SWIS.

- **Deliverables**

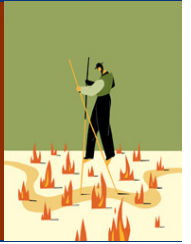
- Assessment of both the technical and market-based mitigation measures available to manage network stability issues associated with increased intermittent generation.
- Recommendations for Technical Rules changes resulting from this analysis.
- Recommendations for Market Rule changes resulting from any market-based mitigation measures identified in this analysis.

# Packaging & Staging



- WP #1 commences first & deliverables are inputs into WP # 2 - 4
- WP #3 & 4 are packaged as separable portions within the same RFT

# Program Schedule



Task Name	August	September	October	November	December	January	February	March
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1 TASK 1 - Kickoff & Project Planning	█							
5 TASK 2 - Review Work Packages	█							
# TASK 3 - RFT Planning Workshop		█						
# TASK 4 - Develop RFT Documentation		█	█					
# TASK 5 - Develop Evaluation Plan			█					
# TASK 6 - Issue RFT & Manage Process			█	█				
# TASK 7 - Prepare Evaluation Report				█				
# TASK 8 - Engage Consultant(s)					█			
# TASK 9 - Develop Implementation Plan & Coordinate Deliverables					█	█	█	█
# TASK 10 - Develop Stakeholder Management Plan						█		
# TASK 11 - Manage Public Consultation							█	█

# Next Steps



- RFT Planning Workshop (Early September)
- Draft RFT documents (Mid September)
- Finalise & Issue RFT documents (Early October)