

Demand Management Innovation Allowance Mechanism (DMIAM) for transmission network service providers (TNSPs) – possible projects

Example Initiative	Description	Estimated delivery time frame and expenditure
Demand management at scale	There is significant scope to test whether small scale DM programs (such as <i>GoodGrid</i> ¹) can be expanded to suit transmission network requirements. This may encourage reduced connection point demand during peak periods and help determine the reliability of DM at the transmission level.	3 years, \$2.0M
Integration of DM into control room operations	Explore the technology for a system that forecasts the need for DM, integrates the information into the control room, automates the dispatch and reconciliation process of data, and would incorporate both critical peak demand (CPD) tariff events and DM events.	2 years, \$2.0M
Aggregation platform for DNSP DM, retailer DM and virtual power plants (VPPs)	Test whether DM resources held by DNSPs, retailers and other aggregators such as VPPs can be drawn upon, assuming the necessary commercial structures and technical systems integration to these other resources are in place. The transmission network would be able to identify the characteristics and draw upon generation from these multiple sources and observe the reaction to system disturbances.	3 years, \$3.0M
Hydrogen electrolyser load control	On the basis that large-scale hydrogen production from renewables eventuates, explore the potential for this significant load to be utilised to provide DM to the transmission network and better integrate renewables.	2 years, \$0.5M
Smart EV charging	This project could capture both residential charging and public fast charging in the one program since there is a larger scope at the transmission network level. This may minimise the amount of network investment required to accommodate increases to the future EV fleet.	2 years, \$2.0M
Optimising Special Protection Schemes (SPSs)	There are several SPSs across the Victorian Transmission Network. This project would examine the effectiveness of these with increasing DER penetration and how we might leverage DER related capability within those schemes to benefit system security. This work would likely be undertaken in conjunction with AEMO (which is responsible for SPS design requirements).	2 years, \$0.2M
Management of the interface between transmission and distribution	Explore the interactions between the distribution system operator (DSO) and transmission system operator (TSO). This would focus on the management of minute to minute operational aspects across both transmission and distribution networks accounting for active DER. Benefits may include reduced network losses and improved long-term planning for voltage management and reactive power requirements.	3 years, \$0.6M

¹ GoodGrid is a successful demand management program targeted towards residential and small business customers.