# Corporate Plan FY2021 Summary

The energy industry in Australia is undergoing unprecedented, rapid and transformational change. This change is occurring faster in Australia than in almost all other developed economies, and in a physical and operating environment that poses greater technical and design challenges.

AEMO is committed to leading and converting these challenges into sustained advantages for energy consumers. The Corporate Plan for FY2021 sets forward the opportunities, challenges and risks the sector is confronting and our plans to address them.







## **Our changing** energy landscape

Our Corporate Plan FY2021 empowers our people to overcome the challenges in Australia's energy landscape, so that together we can drive value for consumers and our members, today and into the future.



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Data growth and

increase in the creation, collection, dissemination and use of energy data

requiring new industry-wide systems and

processes to manage and ensure the integrity of energy information. In addition, advances in computational capability, analytics, design and digitalisation requires an adjustment to energy system infrastructure and the energy grid to support efficient, productive, real-time operation of AEMO's energy systems and markets.

digital innovation

Digital disruption is causing an exponential

#### Evolving workforce and labour market

The challenges faced across the energy industry demand a broad range of competencies within traditional and emerging disciplines. There is a skills shortage in the labour market for many of the skills required to enable industry transformation. It is crucial that AEMO is an employer of choice that can attract, retain and develop an exceptional and talented workforce with the skills and competencies to plan, develop, support and maintain modern, digital energy systems and markets.

#### **Ageing infrastructure** $\blacksquare$ and the integration of renewable energy resources

Across the next 20 years, the requirements for maintaining secure and reliable energy systems will change significantly. Sixty-five per cent of coal-fired generation is five per cent of coal-fired generation is due to retire and will likely be replaced by renewable energy resources, storage and flexible gas plants. Further, ageing infrastructure coupled with an increased level of variable and renewable energy resources significantly increased risks for system operations, requiring expanded system planning and operational capabilities.



#### socio-economic events

**Climate and** 

A turbulent year of unpredictable events has highlighted the need for increased system resilience to better meet the challenges presented by climate driven, international, economic and human health events. Australia's energy systems must now accommodate the increasing frequency, extremity and scale of te-induced weather events, and the influence of weather on major sources of energy production.

#### **Efficacy and effectiveness** O of regulatory and market arrangements

The rapid pace of change in technology and Inerapid pace of change in technology and generation mix across our energy markets is currently outpacing the rate at which market bodies can modernise the regulatory and rule frameworks that govern our systems. Energy policy must be able to respond with the speed necessary to provide investor confidence, take advantage of low-cost capital and empower industry to develop and deploy solutions to emerging challenges.



#### Proliferation of industry participants, across the energy ecosystem

The growing number of consumers, market participants and stakeholders reinforce the importance of effective collaboration, to recognise and solve complex technical, economic and social challenges for the Australian energy nges for the Australian energy system, markets and its consume



Australia's world-leading utilisation of solar PV and our ever-increasing uptake of smart technologies and energy management systems is allowing a new and exciting level of energy production, consumption, participation and innovative control, enabled through a two-way market system

Continuing rapid and complex transformation across Australia's energy systems forces the need for increased resilience and adaptive regulatory structures. Our summer of unprecedented weather events, followed by the COVID-19 pandemic, demonstrates the need for increased vigilance in supporting the reliable delivery of affordable energy while taking necessary steps to increase system resilience to minimise disruptions for consumers and businesses.

## **AEMO's mission, vision** and values

*Our mission and vision reflect our commitment to deliver value* to consumers and industry in this time of unprecedented change in the Australian energy environment. This is demonstrated in AEMO's corporate values that guide our behaviour.

#### Mission

The design and operation of a sustainable energy system that provides affordable, safe and reliable energy for all Australians.

#### Vision

To be a world-leading energy market and systems operator and system planner

#### *Our strategic pillars shape the action we will take to meet the* challenges and opportunities of our transforming energy industry.

		Strateg
1 Reliable, secure and efficient system operations	2 Future system design	<b>3</b> Adaptive markets and operations
Maintain energy system reliability by adapting to changes in generation, including fuel and demand forecasting capabilities.	Facilitate the future energy system to enhance reliability and security while lowering costs and incorporating emission policies.	Help implement and shape new market arrangements together with our stakeholders in line with regulatory processes, to support the energy transition to the benefit of all Australian consumers.
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### Foundations that support all pillars

Stakeholder engagement and transparency Develop aligned and fit-for-purpose engagement tools and skills to bring stakeholder voices inside our organisation and deliver AEMO's voice transparently and with clarity.



#### ic pillars



**Financial and corporate** sustainability Ensure efficient business operations to enable AEMO to meet its obligations.

Corporate governance Maintain AEMO's legal and ethical standing in the eyes of government and industry members, stakeholders, regulators and consumers and ensure business continuity at all times.

## Converting technical challenges to market opportunities and consumer benefits

Our next 10 years must see AEMO and energy industry participants continuously assess how to maintain affordability and provide value to consumers in a rapidly changing energy environment.

#### *Our FY2021 Corporate Plan* emphasises leadership and proactive changes through six strategic pillars.

The first four pillars capture our core responsibilities to plan and operate Australia's energy systems and AEMO's markets for the benefit of all Australian consumers. While the final two pillars represent the technologies and capabilities AEMO requires to deliver our responsibilities now and into the future.

Our strategic approach embodied in the six pillars is enabled through the organisational foundations of transparency and effective stakeholder engagement, financial and corporate sustainability and good governance.

#### Strategic pillars



#### 1. Reliable, secure and efficient system operations

Maintain energy system reliability by adapting to changes in generation, including fuel and demand forecasting capabilities.



#### **2. Future system design** Facilitate the future energy system to enhance reliability and security while lowering costs and incorporating emission policies.

#### **3-year goals**

#### Goal 1

Secure energy system operations - we continuously adapt and innovate to ensure energy systems can be securely and reliably operated under all foreseeable condit

Goal 2 Operational tools and forecasting - we leverage advanced analytics, tools and fore capabilities to operate and coordinate the energy system effectively, as new domin system co-dependencies increase

#### Goal 3

Operational resilience - we quickly recover from disruptions to generation, fuel sup transmission, weather and other external disturbances, to continually and securely Australia's energy systems

#### Goal 1

Energy blueprints - we continuously improve and seek government, consumer and input on high-quality blueprints for Australia's future energy system across electricit through the ISP, WoSP, ESOO and GSOO

Goal 2 Energy system implementation - AEMO has a fit-for-purpose grid connection prosupports the ongoing development of transmission infrastructure that meets cons

Goal 3

Gas supply and market transparency - AEMO has systems and processes that sup increased gas supply and market transparency

Goal 1

Future market design - together with our stakeholders, we facilitate and shape new arrangements to support the energy transition and benefit all Australian consumer

#### Goal 2

Current market reform - all market reform programs are successfully implemented developed in collaboration with stakeholders

#### Goal 3

NEM efficacy and effectiveness - together with stakeholders review the prioritisati responses and risk factors in the NEM in view of recent operational outcomes and shocks such as COVID-19

#### Goal 1

Distributed energy resources - we can reliably and securely manage markets and systems with high levels of distributed energy resources, by enabling greater choic models and participation for consumers

#### Goal 2

Choice and control for consumers - we enable easier access and sharing of energy (through accredited third parties) and have the means to exercise greater choice a to meet their own energy needs

#### Goal 1

Efficiency and experience - we provide efficient online experiences to consumers, participants and staff, through automation and technology solutions

Goal 2 Data and analytics capability - we develop new capabilities enabled by technolog cloud infrastructure, artificial intelligence and machine learning

#### Goal 3

Cyber security - we safeguard AEMO's and Australia's energy systems and data from malicious intent and leakage and work with participants to improve cyber readines resilience

Goal 4

System and market technologies - we implement industry technologies on-time and Goal 1 Values-based culture - our people consistently demonstrate our shared values and behaviours in order to create a culture where people are empowered, adapt to cha can thrive and grow

### Goal 2

Capable people - we are known for our industry expertise and leadership across a domains we operate, to support AEMO's role in the Australian energy industry now the future

Goal 3

Workforce optimisation - we have the right people, with the right competence, in place, at the right time, at the right cost to deliver on our operational and strategic

Goal 4 D&I by design - we are recognised as having an inclusive work environment, which demonstrates that diversity, in all its forms, is truly valued and celebrated

#### **Stakeholder engagement** and transparency

**Financial and corporate** sustainability

Ensure efficient business operations to enable AEMO to meet its obligations.

Goal 1

Stakeholder sentiment - we will measure and share stakeholder assessments of ou engagement processes and their effectiveness

Goal 2

Stakeholder engagement and transparency - we have consistent, coordinated exte interfaces and effective engagement opportunities for diverse stakeholder needs

Goal 3

Reform agenda - we collaborate with stakeholders to champion energy reform that serves consumer interests through efficiency, cost-effectiveness and energy bill imp Goal 1

Affordability and fee structures - our fee structures reflect industry changes and are to those participants that benefit from the services provided

Goal 2 Cost efficiency - AEMO delivers its functions and responsibilities in an optimal and effective manner

Financial sustainability - AEMO continually pursues actions to reduce the financial increasing cost pressures



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#### 4. Consumer engagement and access Empower consumers to exercise choice and control in

**3. Adaptive markets** 

and regulations

benefit of all Australian consumers.

Implement and shape new market arrangements together with our stakeholders in line with regulatory

processes, to support the energy transition to the

the energy market through supportive regulation and easier access and sharing of energy data.

#### 5. Digital and data

Deliver a modern digital platform to provide more reliable and transparent data, improve system reliability and forecasting, and lower the transactional costs to industry and consumers.



#### 6. People, culture and capabilities

Continue to attract, retain and develop the critical leadership and technical capabilities of our people to deliver our strategic business objectives in the most efficient way.

Foundations that support all pillars

Ensure aligned and fit-for-purpose engagement tools and skills to bring stakeholder voices inside AEMO and deliver AEMO's voice transparently and with clarity.

	Priority actions for FY2021	Key outcomes for FY2021
ure Australia's aditions	<ul> <li>Implement Primary Frequency Response (PFR)</li> <li>Identify and develop responses to decreasing minimum demands, voltage management and increasing VRE</li> </ul>	<ul> <li>Stage 1 (above 200 MW) implemented and tested</li> <li>Stage 2 and 3 assessments and reviews completed</li> <li>Minimum demand levels identified for each region and operational procedures to manage these are in place</li> </ul>
orecasting minant energy	<ul> <li>Continue to improve operational forecasting systems and upgrade system operation tools to enable management of the changing generation mix and weather as a fuel, including day ahead, reliability and security forward forecasts</li> </ul>	<ul> <li>Operational forecasting system lifecycle upgrades completed</li> <li>Roadmap for supporting future market operations completed</li> <li>ST-PASA system replacement and system operation tools requirements scoped and design completed</li> </ul>
supply and ely operate	• Engage with stakeholders to review learnings from recent operational and environmental events to determine what changes are required to rules, procedures, standards and IT systems to improve operational resilience and business continuity prior to broader reforms	<ul> <li>Rule and procedure changes identified to improve understanding of generator (including fuel) and transmission reliability and capabilities</li> <li>Gaps identified for operational continuity and cyber response, including COVID-19 learnings with implementation plans developed</li> </ul>
ind industry ricity and gas,	<ul> <li>Deliver the ISP every two years as well as all other statutory publications</li> <li>Support delivery of Western Australia's 2020 Whole of System Plan and improve AEMO's modelling capability to support future WoSPs</li> <li>Anticipate and address key system security and operability issues</li> <li>Trial new technology solutions to overcome system limitations, e.g. system strength</li> </ul>	<ul> <li>Framework for the 2022 ISP developed incl. resilience framework, H2 impact, novel storage solutions</li> <li>2020 ESOO and 2021 GSOO delivered</li> <li>Contribution provided to the design of the inaugural NSW REZ</li> <li>WA Government-led 2021 WoSP published, well received by key stakeholders and priority projects initiated, and WEM Market model created within AEMO</li> <li>Implementation commenced of RIS Stage 1 workplan</li> <li>Scope of RIS Stage 2 report agreed</li> <li>RIS Stage 2 report delivered to plan</li> <li>Technology white paper developed to highlight the current state and potential applications of grid forming inverters</li> </ul>
rocess and nsumer needs	<ul> <li>Improve NEM grid connection process through improved account management, new tools, better processes and information</li> <li>Consider rule changes to better manage connections in marginally stable parts of the system</li> <li>Progress and support delivery of Group 1 and 2 ISP projects</li> <li>Work with key WA stakeholders to improve Generator Performance Standards (GPS) and Generator Interim Access (GIA) to facilitate new connections prior to completion of WEM reform</li> </ul>	<ul> <li>New tools and processes implemented that will give connection applicants greater transparency of timelines and progress of applications as well as a better understanding and timely resolution of issues that must be resolved</li> <li>Actionable ISP projects delivered to plan</li> <li>New generator connection to the SWIS enabled, and new GPS incorporated into WEM/SWIS Technical/Market Rules</li> </ul>
upport	<ul> <li>Identification and analysis of gas infrastructure that could address the forecast gas supply shortfall in the southern states</li> </ul>	Analysis of gas supply options completed for the southern states included in the 2021 GSOO
new market ners	<ul> <li>Continue to support the WA Government's ETS Foundational Regulatory Frameworks (FRF), including finalisation of new market design and implementation planning</li> <li>Work with Energy Policy WA and stakeholders on Pilbara Independent System Operator (ISO) implementation and if requested by the WA Government, take on and implement the new Pilbara ISO</li> <li>Continue to support and drive market design changes required via ESB or equivalent, AER and AEMC to support system operations and reliability</li> <li>Continue to work with regulatory processes and stakeholders to implement beneficial changes to the Declared Wholesale Gas Market (DWGM) and Gas Bulletin Board (GBB)</li> </ul>	<ul> <li>AEMO provides support to enable WA Minister for Energy approval of revamped WEM Rules</li> <li>AEMO Implementation Plan, conceptual architectural design and initial projects complete</li> <li>New Pilbara ISO function implemented (Subject to WA Government request, timing and funding)</li> <li>High-level designs developed where required for security services and ahead markets, a procurement mechanism and two-sided markets</li> <li>Industry-wide gas market efficiency options identified</li> </ul>
ed and	<ul> <li>Implement agreed market reform programs that improve the efficiency of the wholesale and retail market arrangements by continuously engaging with stakeholders through to optimise outcomes for businesses, industry and consumers</li> </ul>	<ul> <li>Market arrangements implemented that improve customers and information transparency</li> <li>Positive feedback received from stakeholders</li> </ul>
ation, market nd external	<ul> <li>Work with stakeholders and regulatory institutions to improve the financial resilience of the NEM in normal operation and in the event of external shocks such as COVID-19</li> <li>Review recent operational separation events and the effectiveness of market arrangements to respond in a timely manner and resolve issues where systemic risks exist</li> </ul>	<ul> <li>Operational improvements identified to support improved financial resilience and financial support of the NEM under a variety of scenarios</li> <li>Market and operational issues identified, prioritised and resolved</li> </ul>
d energy oice, business	<ul> <li>Work in partnership with ESB or equivalent, market bodies, and stakeholders to design and implement technical integration of DER</li> <li>Leverage learning from trials to introduce third parties and alternative models to provide aggregated resources into markets</li> <li>Implement third-party demand response service providers to participate in the wholesale energy market</li> </ul>	<ul> <li>WA Government DER roadmap implementation supported</li> <li>Minimum DER technical standards developed and implemented</li> <li>Operationalisation plans for VPP trial developed and implementation commenced</li> <li>Design, procedures and technical specifications completed for the integration of Wholesale Demand Response</li> </ul>
rgy data e and control	<ul> <li>Work in partnership with ACCC, Data61, and industry to facilitate consumer and third-party access to data, so consumers can make informed decisions about energy</li> <li>Implement two-day switching to enable consumers to access their energy supplier of choice within two business days</li> </ul>	<ul> <li>CDR Gateway design completed and implementation in progress (in accordance with final government timelines and funding)</li> <li>Two-day switching implementation well progressed for go-live in early FY2022</li> </ul>
ers,	<ul> <li>Implement new web and participant engagement platforms</li> <li>Provide more granular and timely data to members and participants</li> </ul>	<ul> <li>Number of portals for interacting with AEMO reduced</li> <li>AEMO data warehouse developed and populated with new data sets for use by industry</li> </ul>
ogy such as	<ul> <li>Develop strategic forecasting capabilities to absorb new data sets, fine tune algorithm accuracy and improve scalability and timeliness</li> <li>Further develop AEMO's Data Platform to allow the use of data by Industry, researchers and others to create value</li> </ul>	<ul> <li>Existing medium-/long-term forecasting systems upgraded</li> <li>Short-term forecasting systems redeveloped</li> <li>Data platform on scalable cloud environment delivered and made available digitally in a secure manner</li> </ul>
from ness and	<ul> <li>Uplift capability across cyber and data control to prevent/detect attack and control data leakage</li> <li>Contribute to cyber industry working groups to improve detection and incident response protocols and processes</li> <li>Involvement in cyber incident response exercises with participants and government</li> </ul>	<ul> <li>Cyber security software and processes delivered to NIST standards</li> <li>Identity access management to AEMO systems and platforms completed</li> <li>Industry preparedness to detect and coordinate response to cyber incidents improved, in conjunction with federal government agencies and subject to enabling cyber legislation, regulation and funding</li> </ul>
and to budget	<ul> <li>Implement system and digital components of 5MS and other regulatory projects</li> <li>Develop simulation tool to improve system design, operation and connection processes</li> </ul>	<ul> <li>NEM 5MS implemented and ready for Industry testing</li> <li>First phase of simulation tool developed to assist in connection process</li> </ul>
and to budget and change and	<ul> <li>Develop simulation tool to improve system design, operation and connection processes</li> <li>Values and behaviours embedment</li> <li>Implement Ways of Working tools, flexible work policies and training to enable more flexible work practices and support remote working</li> </ul>	<ul> <li>First phase of simulation tool developed to assist in connection process</li> <li>Culture survey (OHI) actions are implemented</li> <li>AEMO's values behaviours are designed into our performance review process</li> <li>Flexible work policy, and tools are implemented</li> </ul>
s all the now and into	<ul> <li>Implement targeted development programs in Leadership, Change, Stakeholder Engagement and Business Acumen</li> <li>Manage succession plans for leadership pipeline and critical roles</li> <li>Uplift Human Resource (HR) Foundations to Human Resource Information System (HRIS), HR processes and team ways of working</li> </ul>	<ul> <li>People capabilities uplifted and positive impact to learning and business outcomes observed via development review and program evaluations</li> <li>Leadership and critical role succession plans are in place and associated talent development actioned</li> <li>HRIS roadmap agreed and HR process improvements achieved</li> </ul>
in the right gic objectives	<ul> <li>Develop an enterprise workforce plan for FY2021 and beyond, aligned to resource and capability requirements of the new AEMO Operating Model</li> <li>Streamline labour utilisation across the enterprise</li> </ul>	<ul> <li>Enterprise strategic workforce plan developed and implemented to support labour objectives of the Operating Model review</li> <li>Labour plans and budgets agreed for FY2022</li> <li>Discriptional indusing a minimum developed and industrial and budgets agreed for FY2022</li> </ul>
iich	Continue to implement the Diversity & Inclusion Plan	<ul> <li>Diversity and inclusion principles and practices are embedded in key Human Resource processes for pay equity, talent acquisition, talent development and promotion</li> </ul>
our	<ul> <li>Implement AEMO-wide stakeholder sentiment assessment process and measure stakeholder's views on AEMO engagement</li> </ul>	<ul> <li>Initial stakeholder engagement survey results published and ongoing stakeholder sentiment assessment process established</li> </ul>
external Is	<ul> <li>Continue to develop a clear external interface, aimed at communicating transparently and working collaboratively with stakeholders</li> <li>Further understand the nature of information stakeholders value to inform their business operations and implement identified improvements from FY2020</li> <li>Provide a provide the statement of the statement is consultation with inductor participants and consumer representatives.</li> </ul>	<ul> <li>Transparency improved and data and information available to participants (in accordance with agreed scope for FY2021)</li> <li>Renewed fit-for-purpose fora and committee structures implemented</li> </ul>
that best impact	<ul> <li>Review existing fora and committees in consultation with industry participants and consumer representatives</li> <li>In partnership with members and consumer advocates, identify, assess and influence reform activities that will deliver the greatest value to consumers in Australia's energy transformation</li> </ul>	Reform agenda progressed with stakeholders and participants
are allocated	Consult on and develop new participant fee structures	• Final determinations on NEM and other fee structures published by 31 March 2021
nd cost-	<ul> <li>Complete an external review of AEMO's operational and capital expenditures</li> <li>Implement improvements to service provision to achieve cost reductions</li> </ul>	<ul> <li>Cost efficiency review completed</li> <li>Phase 1 cost efficiency and optimisation improvements implemented to plan</li> </ul>
ial impact of	Undertake a review of current and prospective revenue sources	Possible alternative corporate and funding models developed for AEMO

#### **Budget and fees**

Each year, AEMO prepares a budget outlining fees and charges for each energy market we operate and the recovery of other services consistent with our legislative authority. In Western Australia, this includes fees and charges approved by the Economic Regulation Authority (ERA).

Over the last several years the Australian energy industry has experienced increased complexity and obligations associated with the successful management and transition of the evolving energy system. AEMO looks to moderate these impacts on our members through continuous actions to increase organisational efficiencies and steps to moderate the impact of cost changes on individual participants. These efforts are detailed in our Consultation Report on the 2020/21 budget.

#### Performance

AEMO continually measures our performance to ensure that we meet expected outcomes. Over the term of our corporate plan we will achieve targeted goals to enable us to be a world-leading market and system operator and system planner. Our annual key performance outcomes are detailed in the complete FY2021 Corporate Plan.

In addition, AEMO will continue to publish the information necessary to fulfil our regulatory obligation and inform members. AEMO is also undertaking a broader consultation with stakeholders to discover additional information they value to remain well informed on system and market performance.

Corporate KPI	Target	Stretch target
No preventable load shedding occurs	100%	100%
Meet operational energy system security requirements	100%	100%
No loss of system and/or market suspension due to preventable cyber incident impacting AEMO systems	0	0
Achieve all material legal and reporting obligations	100%	100%
Achieve annual budget Incorporating COVID-19 and NEM fee reduction impacts	-3%	-5%
Achieve all material prudential supervision obligations	99%	100%
Net advocacy score Increase from inaugural stakeholder survey score baselined in FY2021	+2%	+4%
Execute the Corporate Plan	75%	90%
People, safety and engagement including:		
Achieve WHSE scorecard	100%	100%
• Organisational Health Index (OHI) Score	73	76

For more information

For more information and to access the complete Corporate Plan FY2021, please visit the 'About AEMO' section of our website, www.aemo.com.au

