

REGIONAL DEVELOPMENT ACT 2004 REVIEW

MEA RESPONSE – JANUARY 2024

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With the rise of electrification during a time of a skills shortage crisis, MEA strongly urge Government to consider the two following policy topics to assist rural and regional development:

- Consumer Energy Resources (CER)
- Vocational Education Training in Secondary Schools (VETSS)

We believe Government prioritisation towards these policy matters will significantly assist in developing long-term sustainable economic growth in rural and remote regions, empowering these areas to become self-sufficient in not only clean energy production but also installation and maintenance of private electrification assets.

Consumer Energy Resources (CER)

CER are privately owned assets used to privately generate, store and utilise energy in the most efficient manner providing reliable and affordable electricity for all households and businesses regardless of location. It is our belief Government has a responsibility to proactively assist these communities to participate in CER through policy implementation, funding assistance, education and public infrastructure upgrades.

Examples of CER include:

- Rooftop solar photovoltaic units (Solar PV)
- Battery storage
- Electric vehicle (EV) batteries.

Solar PV allows households to take advantage of the excessive sunlight Australia receives enabling them to become less reliant on traditional one-way transmission generated energy which can be unstable and expensive. This is particularly useful for rural and remote regions where electricity can be unreliable and often at the whims of climate events (e.g. cyclones, bushfires, etc). To optimise the benefits these communities derive from CER, Government should focus on policies related to Time of Use (ToU) tariffs, Home Energy Management Systems (HEMs), upgrading infrastructure for a two-way generation network and bi-directional electric vehicle (EV) charging. Government should provide these households with financial rebates to alleviate costs of solar PV installation; the financial yield being a growing economy within NSW rural and regional areas through reduced energy bills leading to greater disposable incomes.

Time of Use (ToU) Tariffs

MEA believes rural and remote consumers will significantly benefit from implementing flexible demand and generation ToU tariffs in concert with solar and home battery storage, giving households control over power bills. During the middle of the day, the network experiences minimum demand for energy, while CER generated energy is at its greatest. Then, during 4PM-9PM, the network experiences peak demand for energy, while CER energy is no longer being generated. Implementing ToU tariffs sends price signals to rural and remote consumers when to store excess energy and when to utilise and/or send excess energy back to the grid. During the minimum demand window, ToU charges would deter consumers from sending excess energy back to the grid, preventing an oversupply of energy on the network. Then, during the peak demand window when energy rates are at their highest, ToU tariffs would provide consumers with rebates, encouraging excess energy to be supplied to the grid leading to sustainable economic growth within rural and remote communities thereby increasing disposable household income.

Home Energy Management Systems (HEMS)

Full optimisation of ToU tariffs can be achieved through HEMS which allows consumers to remotely control smart appliances, and resources such as solar and batteries. When paired with digital smart meters, consumer choice is optimised. It is a powerful companion to tariff reform and home battery strategies to improve energy efficiency, time shift energy, and decrease emissions across NSW. Government should ensure rural and remote households have education and affordable access towards HEMS.

Upgrading Traditional Networks to Allow for Two-Way Networks.

Government Investment is necessary to upgrade distribution and transmission infrastructure to reflect the changing energy supply chain, modifying its capabilities from a one-way system to a two-way system. This will allow rural and remote consumers to not only receive energy but also transfer energy they have privately generated back to the grid in return for financial reward (i.e. rebate).

Electric Vehicles (EV)

We envision rural and remote households eventually taking advantage of bi-directional EV charging when the regulatory environment for V2G is implemented. Bi-directional V2G not only charges EVs but stores excess energy for household use during peak times/sending back to the grid. This also acts as a resilient response to climate events and unstable grid connections, as households and businesses can utilise the large capacity of EV batteries stored energy during outages. Government should implement policies that make transitioning towards EVs and enabling bi-directional charging, an affordable priority for rural and remote communities as such areas are likely to have low levels of financing options.

Vocational Education Training in Secondary Schools (VETSS)

MEA strongly advocate for Vocational Educational Training (VET) to be integrated and streamlined into the secondary school curriculum with an equal weighting to Australian Tertiary Admission Rank (ATAR). It is our strong belief this is the most impactful solution to addressing skills shortage issue, especially within rural and remote areas, and consequently increase attraction and retention within Science, Technology, Engineering and Math (STEM) across all diversities (i.e. rural and remote areas, gender, ethnicity, disabilities, etc.). The benefits include better equipped personnel entering the workforce, enhanced aptitude and competency screening, heightened attraction and retention and engagement by rural and remote students. MEA sees this as the pivotal role in actioning societal, structural and systemic change within rural and remote communities. This is particularly important as we rapidly enter an era of electrification.

The current schooling system moulds students to fit an academic structure, leaving behind those who are unwilling or unable to conform. Providing exposure and targeted training offers rural and remote students enhanced opportunities for future success in STEM by providing a supportive and encouraging environment, better incentivising those who might otherwise be disengaged, to become proactive towards their future career. They are removed from the academic/commercial teaching structure of ATAR schooling and made to feel more included by teachings targeted towards their VET skill set. It will allow these students the same opportunity as students developing skills towards their academic/corporate career to pursue their STEM career from a school age. We can expect this to build rural and remote organisations' capacity and expertise in clean energy development as an influx of our Rural and remote younger generations develop STEM careers.

MEA believe VETSS will also provide better opportunity in exposing STEM to rural and remote students as it would be available within their current schooling framework, providing students within these communities with an equal opportunity to those living in urban areas to work towards STEM during their schooling. Furthermore, we believe this will incentivise students to continue pursuing STEM careers during tertiary education, despite long distances to a local training facility, as they have become exposed to, and inspired, to develop a successful STEM career. This is where we can expect to see cultural and systemic change towards diversity in STEM trades, alleviating pressures on rural and remote areas in the future.

Conclusion

MEA believes Government policies and funding towards CER and VETSS will enhance rural and regional areas' economy through not only reduced power bills, but also a developed local workforce who earn and spend income within the same area (as opposed to FIFO workers), skilfully trained to install, repair and maintain private CER assets. These two policies combined position rural and remote areas to become independent and autonomous, leading to regional development.