

<https://island.lk/the-questionable-wisdom-for-pursuing-lng/>

The questionable wisdom for pursuing LNG

I have been advocating the need for a rational evaluation of the need if any, and the wisdom of adopting LNG as an option for our energy needs, since 2019.

The following have been published in the national papers.

The LNG Saga –

<http://epaper.island.lk/paper/2021/10/04>

The LNG Option –Need for a deeper re-think urgently - 4th Dec 2019

http://island.lk/index.php?page_cat=article-details&page=article-details&code_title=215420#

What do we need? LNG or NG or neither? - 8th Nov 2019

I am led to wonder if I have been just wasting my time and efforts, judging from the recent events, as we hear the same inadequately analyzed and ill conceived and outdated proposals being aggressively pursued , in total disregard to the significant changes which have been happening throughout the world in the interim. Now a cabinet paper has been submitted citing massive savings, which a commentator has claimed to be over stated by 100% using the data in the same expert report, based on which the Cabinet Paper has been drafted published in the Sunday Times of 15th Dec 2024.

[LNG switch: Cabinet paper contains flawed projected savings | Print Edition - The Sunday Times, Sri Lanka](#)

If this is true, it would only continue the familiar trend , ever since the idea was first put forward many years ago , cherry picking of data to fit the notion, including patently erroneous or unsubstantiated assumptions.

It will be recalled that the use of LNG as a source of fuel for power generation was proposed as a transitional fuel about ten years ago. Since no one wanted to openly object to the growing and successful development of renewable energy, LNG was proposed to be the intermediate solution until the solar and wind energy became financially viable and technically reliable. That was over ten years ago.

However, the fact that much has changed even in Sri Lanka, in the adoption of both these technologies and it is now universally accepted that, Renewable Energy is more economical than any fossil fuel based power in addition to being environmentally benign. There are dozens of references, including the International Energy Agency (<https://www.iea.org/>) confirming this status.

But unfortunately, the same old outdated arguments are being trotted forward in total disregard to the much changed ground realities. The primary culprit is the Ceylon Electricity Board planners who find it impossible to get rid of their bias for continued dependence on imported fossil fuels and the prejudice

against the indigenous renewable resources. This is contrary to the often repeated assurance of their support for the development of RE. Perhaps this is due to the fear of losing their strangle hold on the electricity sector as the state monopoly , or some other agendas, which I will leave the readers to judge.

A few years ago the attraction of LNG was understandable, both due to the fact that the world LNG prices were at a historical low, and there was hope of our own Natural Gas in the Mannar basin being developed, so that any local investments to adopt the LNG option , both in way of the infrastructure and generation facilities , appeared justifiable. The circumstances have changed so much that such justification can no longer be done with the much increased price of LNG and the highly depreciated Rupee, proving once more the danger of dependence on imported fossil fuels, on supply of which we have no control on one hand, and the continued and enhanced drain of FOREX on the other. The long petrol and gas queues and hours long power cuts not long ago, were the direct result of such dependence. Replacing oil with LNG is certainly not the solution now, when the alternatives have proven commercially viable even in Sri Lanka and in the rest of the world .,

But does the CEB or their consultants or their masters in the Ministry of Power and The government, give any consideration to these altered circumstances, let alone the undeniable and encouraging progress made in the adoption of RE resources which does not require any imported fuels, and are cheaper and environmentally benign? It is a great national tragedy that this is hardly the case.

The present government of the NPP, appears to have been sold the same recipe of the now mythical essential need and the value of LNG, as even their policy documents have listed LNG as the option for the future.

The CEB with the support of the newly appointed Minister and the Secretary has pounced upon this as an imperative in total disregard for the other established policies of

- Reaching 70% RE contribution by 2030 and Carbon neutrality by 2050
- Adopting least economic cost mode of generation
- None dependence on imported energy sources for future energy security and thereby the National Security
- Cease building of new coal-fired power plants.

A new policy is added

- New addition of firm capacity will be from clean energy sources such as re-gasified liquefied natural gas (R-LNG).

This last statement is highly contestable as LNG is not clean in consideration of the entire supply chain and is reported to be 33% higher emitter of Carbon Dioxide than coal.

The Falsity and Lack of Coherence of CEB Arguments in support

And CEB continues to pursue their lopsided arguments and have proposed addition of over 3500 MW of LNG based power in their Long Term Generation Plan for 2025 to 2044. Now the Chairman has advocated to the government, that the stalled tender for the development of a Floating Storage and Re-Gasification Unit (FSRU) be reactivated. But no mention has been made of any arrangement to source of

LNG and the reliability of such supplies in the long term, which one would have thought, is the primary requirement before any steps are taken in building user end facilities.

Sri Lanka certainly cannot claim to be out of bankruptcy, although some measure of stability has been attained, only by postponing the repayment of massive amount of foreign loans, which will come to haunt us in the near future as close as 2028. Thus, understandably the government is very keen to increase the FOREX earnings, to reduce the continuing gap between cost of imports and the export earnings. Therefore, without a much broader and deeper analysis of the claimed advantages and savings and as the panaceas for resolving the technical issues faced by the CEB in expanding the addition of more RE, a hasty decision to opt for addition of LNG could hardly be considered wise. This is a matter of great national concern and such a decision which will only exacerbate the Balance of Payments gap, cannot be left to the CEB or even the Ministry of Energy, without intense in-depth analysis. This should cover all aspects of costs, reliability in the long term of supplies and costs and other economic considerations, approved after a much wider stakeholder consultation. Hither to there has never been such a comprehensive study or consultation. The present promise of lower cost of generation, yet to be proven, and in total disregard to the above issues is certainly not acceptable.

The issues which a has come to light, both during the earlier instances when such hasty decisions were mooted and also in the analysis of the Draft Long Term Generation Expansion Plan 2025-2044 are discussed below.

The cost of LNG based power generation.

This must include not only the cost of the LNG itself but also all other costs involved in the deployment of the FSRU and regassification process and the piping of the re-gasified LNG to the coast, as well as the added pipe network required to reach the power plant. While some numbers can be quoted on the world prices of LNG and the historical trends, there are no established costs of the other aspects. The variability in respect of the world prices then and now are shown below.

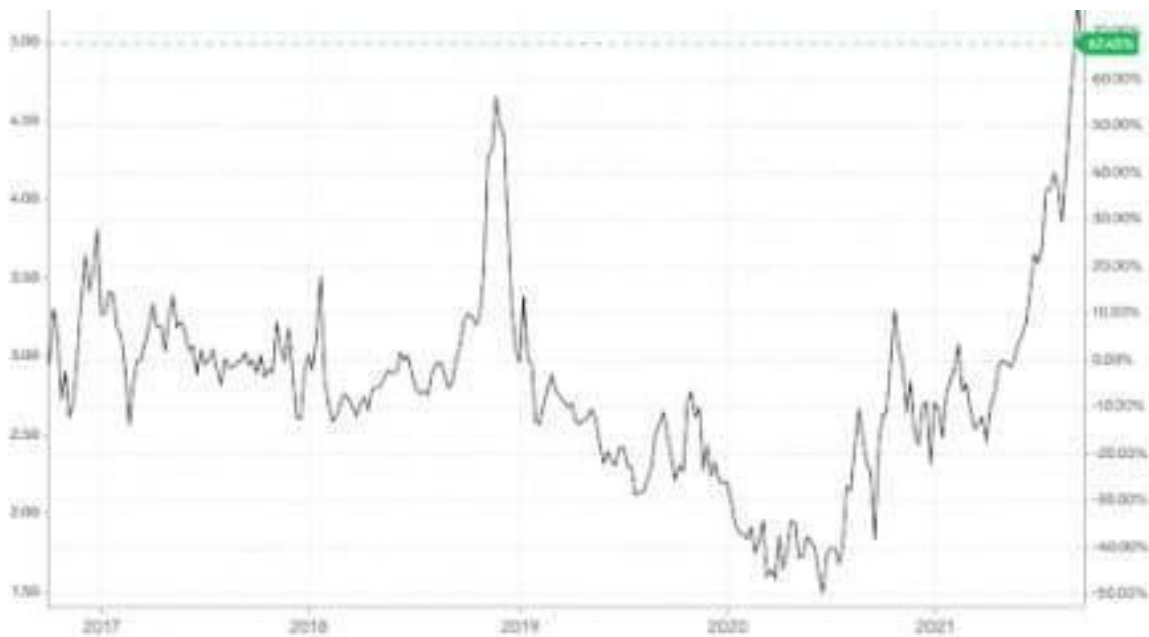


Fig 1- LNG- Price variation 2017 -2021 - Price \$ 5.0 /MMBTU and US \$ = Rs 210

Japan Liquefied Natural Gas Import Price (I:JLNGIP)

12.91 USD/MMBtu for Oct 2024

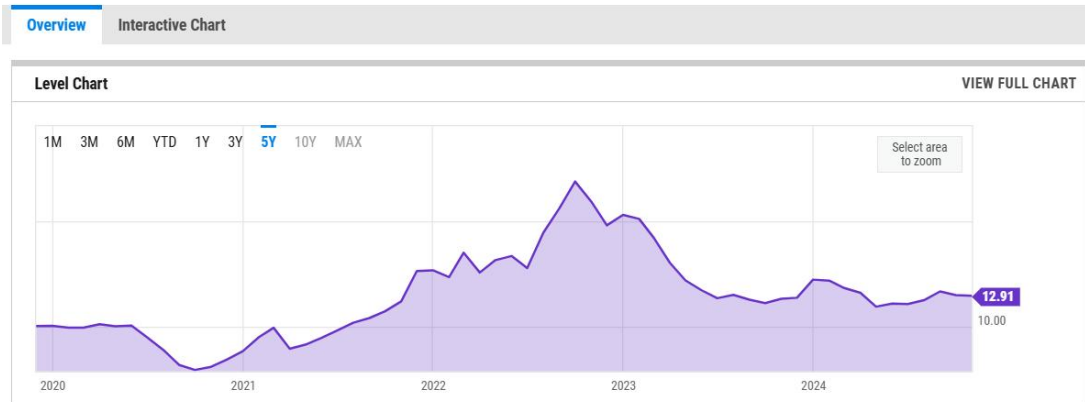


Fig 2 – Current Price trends of LNG -

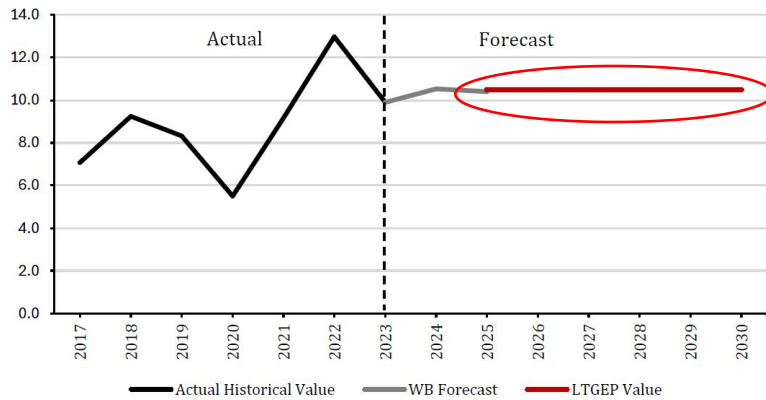


Fig 3 – CEB prediction of LNG prices

The change in world market price of LG and its impact on Sri Lanka can be compared as below

Year	\$ /MMBTU	Parity Rate Rs /US \$	Cost Rs/MMBTU	in	Increase % over base
2010	2.5	113	282.5		Base Price
2020	5.0	185	925		227.5%
2024 Oct	12.91	297	3834.27		1260%
2025 CEB assumption	10.5	290	3045		977%

As such how can anyone even contemplate a flat trajectory for future prices as childishly shown in the above chart, used in the LTEGP? Even a simple private businessman would not plan any future venture based on such impossible projections. But then the CEB is not held responsible for any disasters they have been causing over the years and plans to plunge the entire country to another disaster.

The LTGEP reveals that that the annual natural gas consumption will remain at a very low level (below 0.6 MTPA) till 2035. This will add a substantial cost to the capacity charge of the FSRU which has to be accounted for when the total LNG fuel costs are calculated and thus further increase the cost of generation.

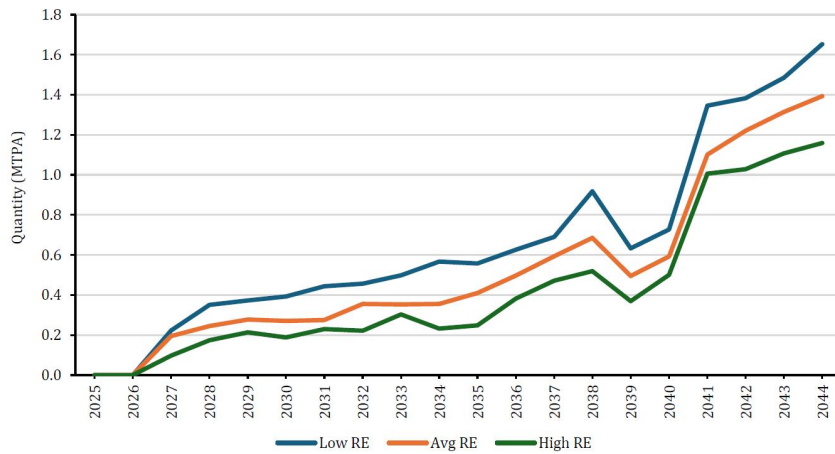


Fig 5 - LNG demand prediction in LTEGP 2024-2044

The demand will remain low at about 0.6 MTPA which is well below the capacity of a FSRU that would interest any investor. There is an attempt to blow this up by planning totally unacceptable plans to increase demand by converting the aging plants at Kelanitissa and even to use if for transport.

It is quite unlikely that any investors would be interested in catering to such low volumes, unless there is provision for substantial premiums on the sale price. This added to the current East Asia price of \$ 15.04 plus the other charges have already made this option none viable. Using even the declared price of \$ 11.90 the cost of generation would be over Rs 55.00 /kWh.

<https://www.argusmedia.com/en>

For Sri Lanka, the governing factor is the cost of generation which must include the entire supply chain and infra structure costs development and operation, **including any take or pay provisions or premiums for lower scope of supplies.** These considerations have been swept under the carpet by erroneous data and plainly misleading numbers such as assuming that the price of LNG will be none variable in the future. This was done in case of Coal and is still being practiced.

Promise of a Clean Fuel

It is futile to try and paint LNG as clean and low in carbon emission. The carbon emission has to be gauged across the entire supply chain. There are studies to say that LNG is has 33% higher carbon emission than coal.

<https://reneweconomy.com.au/green-washed-lng-emits-33-more-carbon-that-coal-new-report-finds/>

As such the promise of LNG already fails on both counts, based on which it has been promoted. That of economical cost of generation and the greenhouse emissions. This is without any consideration of the totally avoidable additional drain of foreign exchange.

What does the CEB expects to gain by this addition of LNG?

The only reason for the CEB to pursue this goal is only to perpetuate the dependence on imported fossil fuels, now that their former goal of adding more coal power has been soundly rejected even by the previous government. There is no way that this can be considered a progressive move on one hand because of the continued drain on foreign exchange for the import of LNG , and the impact on the long term energy security of the country with dependence on a source completely outside the control of Sri Lanka.

They hide these dangers by citing issues of a need for Base Load power and spinning reserves and the none firm nature of the two renewable energy sources of solar and wind. The totally indigenous resource of firm and available 24/7 year though, Dendro energy resource is ignored entirely.

All these problems have been well resolved by other countries and the CEB choses to turn a blind eye to promote this nationally disastrous move, even going to the extent of citing patently false data.

The Ministry and the Government must take urgent action to understand the truth and prevent this disaster being perpetuated.

Conclusion

The Government has several promises to keep.

1. Build up the FORWEX reserves to face the debt repayment challenge in 2028
2. Reduce the consumer tariff by 35%.

Achievement of Both these will be highly doubtful, if the CEB is permitted to implement these unviable proposals. Their claim of inability to reduce the consumer tariff was soundly debunked by highly researched presentations made, during the recent public consultations by the PUCSL. It was also pointed out that the consumer tariff can be further reduced significantly by eliminating the use of oil for power generation as early as possible. The CEB now proposes to o such obstruct positive trend by committing the country to perhaps even more damaging introduction of LNG.

The CEB is driven only by their inability and unwillingness to change their Frog in The Well attitude and assimilate the more progressive developments in the RE sector in the best interests of Sri Lanka and its Citizens. The question has to be asked is the CEB or even the Ministry of Energy can be trusted to make such decisions , which affects the entire country without a wide ranging public consultation?

The Ministry and the Government should at least now, officially assign the responsibility and accountability of achieving the national objectives , of much reduced consumer tariff and goal of reaching the 70% RE target by year 2030 to the CEB.

This is the right of the People of Sri Lanka, who are the true owners of the Energy Sector and Resources and are the major Stake Holder and not the CEB

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