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# Economics and technology of floating nuclear thermal power plants: FNTPP “Academician Lomonosov”

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*The article explores new approaches to the assessment of the public significance of the electrical power industry and the manifestations of the trends in the transition from the static to dynamic innovative changes in the infrastructure of the located power plants. The special importance of water spaces as a unique option for locating power plants is noted. A variant of the floating nuclear thermal power plant on the fossil fuel traditional for nuclear power plants is considered. Currently it is the only energy facility of this type, ready for locating and operation in the water area of the Russian Arctic coast, at Chukotka, near the port of Pevek. Economic aspects of choice of power plants of this type are due to the following factors: the special importance of the domestic maritime regions; their natural and climatic conditions, in particular, at the Russian Arctic coast; innovative technologies of Rosenergoatom which are preferable for floating power plants; commercial prospects of their implementation in the domestic and world water markets.*

**Keywords:** *extensiveness, static efficiency, dynamic efficiency, competitive position, energy markets, EnergyNet, maritime space markets, MariNet, floating autonomous power station, electric power generation, heat generation, sea water desalination, tariff, marginal costs, future costs, problem of temporary inconsistencies*

## REFERENCES

- [1] Rossiya poluchit srazu dve startovye ploshchadki dlya zapuska kosmicheskikh apparatov, obe – v ekvatorialnoy chasti Tikhogo okeana [Russia will receive two launching sites at once for spacecraft launching, both in the equatorial part of the Pacific Ocean]. *KM.ru*. Available at: <http://www.km.ru/glavnoe/2006/02/15/kommentarii-dnya/rossiya-poluchit-srazu-dve-startovye-ploshchadki-dlya-zapuskov-k> (accessed February 21, 2017).
  - [2] Chumakov V. My govorem — Arktika, podrazumevaem — “Rosatom”... [We say the Arctic, we mean — Rosatom...]. *Nauchnaya Rossiya — Scientific Russia*. Available at: <https://scientificrussia.ru/articles/my-govorim-arktika-podrazumevaem-rosatom> (accessed February 21, 2017).
  - [3] *Plan meropriyatiy (“dorozhnaya karta”) “Neyronet” natsionalnoy tekhnologicheskoy initsiativy* [Schedule of measures (road map) “Neuronet” of the National Technological Initiative]. Available at: [http://www.nti2035.ru/markets/docs/DK\\_neuronet.pdf](http://www.nti2035.ru/markets/docs/DK_neuronet.pdf) (accessed February 21, 2017).
  - [4] Porter M.E., Kramer M.R. Strategy and society: the link between competitive advantage and corporate social responsibility. *Harvard business review*, 2006, vol. 84, no. 12, pp. 78–92.
  - [5] Borzakov D.V. *Vestnik Voronezhskogo gosudarstvennogo universiteta — Proceedings of Voronezh State University*, 2015, no. 1, pp. 5–11. Available at: <http://www.vestnik.vsu.ru/pdf/econ/2015/01/2015-01-01.pdf> (accessed August 08, 2017).
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- [6] Dolan E.J., Lindsey D.E. *Market: Microeconomic Model*. London, Cengage Learning EMEA Publ., 1991, 538 p. [In Russ.: Dolan E.Dzh., Lindsey D.E. Rynok: mikroekonomicheskaya model. St. Petersburg, Avtokom Publ., 1992, p. 333].
- [7] Dzaguto V., Dyatel T., Davydova A. Grazhdan vyvodyat na solnechnuyu panel' [Citizens are led to the solar panel]. *Kommersant.ru*, February 20, 2017, no. 31, p. 9. Available at: <https://www.kommersant.ru/doc/3224416> (accessed February 21, 2017).
- [8] Zakharov M.N., Omelchenko I.N., Sarkisov A.S. *Situatsii inzhenerno-ekonomicheskogo analiza* [Situations of engineering and economic analysis]. Moscow, BMSTU Publ., 2014, pp. 385–425.
- [9] V 2014 godu v Peveke nachnetsya stroitelstvo beregovoy chasti PATES “Akademik Lomonosov” [In 2014 in Peveke, construction of the coastal part of the floating NPP “Akademik Lomonosov” will be started]. *Seogan*. Available at: <https://www.seogan.ru/v-2014-godu-v-peveke-nachnetsya-stroitelstvo-beregovoiy-chasti-pates-akademik-lomonosov.html> (accessed August 03, 2017).
- [10] Honerlah H., Hearty B. Characterization of the Nuclear Barge Sturgis. *Proceedings of the Conference “Waste management”, February 24–28, 2002, Tucson, AZ* [In Russ.: Yadernaya barzha Sturgis — доклад inzhenernogo korpusa armii SShA. Abridged translation. Atominfo news agency]. Available at: [www.atominfo.ru/news/air1632.htm](http://www.atominfo.ru/news/air1632.htm) (accessed August 04, 2017).
- [11] Eksperimentalnaya amerikanskaya plavuchaya AES napravlena na utilizatsiyu [The experimental US floating nuclear power plant is aimed at utilization]. *Rossiyskoe atomnoe soobshchestvo — The Russian Atomic Community*. Available at: [www.new.atomic-energy.ru/news/2015/04/21/56413](http://www.new.atomic-energy.ru/news/2015/04/21/56413) (accessed August 15, 2017).
- [12] Emelyanenko A. *Rossiyskaya gazeta — Russian newspaper*, October 5, 2016, no. 224 (7092), p. 4. Available at: <http://rg.profkiosk.ru/article.aspx?aid=502471> (accessed October 06, 2016).
- [13] Kobayakov K. *Strana Rosatom — Rosatom Country*, May 2016, no. 18 (242), p. 7. Available at: <http://www.strana-rosatom.ru/opresneniyu-vybiraют-инжиниринг/> (accessed June 05, 2016).
- [14] Peschinsky I. *Vedomosti*, February 02, 2017, no. 4254, p. 13. Available at: <https://www.vedomosti.ru/business/articles/2017/02/02/675838-proekti-dalnevostoke> (accessed February 03, 2017).
- [15] Omelchenko I.N., Aleksandrov A.A., Brom A.E., Belova A.E. *Gumanitarnyy vestnik — Humanities Bulletin*, 2013, iss. 10. Available at: [www.hmbul.ru/catalog/ecoled/econom/118.html](http://www.hmbul.ru/catalog/ecoled/econom/118.html) DOI: 10.18698/2306-8477-2013-10-188 (accessed March 14, 2017).

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