SPACECRAFT FOR ELECTRICITY DISTRIBUTION, AND ASSOCIATED METHOD

Technological advantages

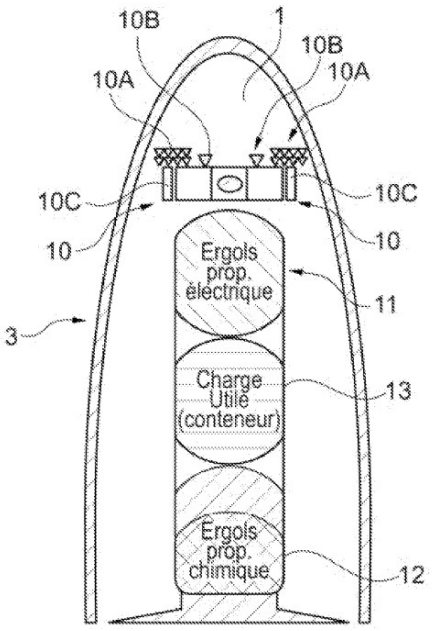
- Spacecraft capable to carry out several missions for electric energy distribution.
- Can deliver high power electric energy.
- Spacecraft embarks a payload.

Invention synthesis

The invention relates to a modular refuelable spacecraft to distribute electric energy using cables, short waves or lasers. This can take place in free space, in orbit or on celestial bodies. The spacecraft is equipped with an electric thruster, a chemical thruster and an electric generator based on solar cells that may be rolled back or unrolled. The spacecraft may be deployed during the energy transfer delivery or during the displacement period. It can be retracted for space docking or during landing and take-off from a celestial body (using the chemical thruster). Finally, the spacecraft is equipped with its own refueling system.

Potential applications

- Electric energy delivery in free space, in orbit or on a celestial body.



Schematic view presenting the spacecraft sitting on a launcher

1) Spacecraft
3) Launcher
10) Main structure
10A) Electric thruster
10B) Chemical thruster
10C) Electric solar generator
11) First tank filled with propellant
12) Second tank filled with propellant
13) Supporting structure to carry a payload

Commercial benefits

- Costs reduction for the electric energy delivery : fewer rocket launches required, capable to carry out several missions.
- Enhances the lifespan of other spacecrafts using this electric power servicing.

Patented invention - under license.

For more information :

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