













Where  $A^{[2]}$  is the second alternative ranked by  $Q$ .  $A^{[1]}$  is the best alternative with the least  $Q$  value, and  $m$  is the number of alternatives.

$$0.38 - 0.09 = 0.29 \geq DQ = \frac{1}{5-1} = 0.25$$

Condition 2 (acceptable stability):

Also, the alternative  $A^{[1]}$  i.e. “wind energy” has the best rank in  $S$  (in table  $V$ ). Then, in this case the best renewable energy is “wind energy”.

#### IV. CONCLUSION

The availability of renewable energy resources, their reliability, and technological maturity in this regard are among the important factors justifying the use of renewable energies. In order to accomplish this, experts and decision-makers endeavour to reduce technical and financial risks. The present study, ranked renewable energies in Iran. This study is based on fuzzy multiple criteria decision making. We arrived at the conclusion that, in view of the criteria and limitations in Iran, the energies produced by wind, biomass, and sunlight occupied the first three ranks, respectively. Therefore, as a suggestion, to make a better use of renewable energies in Iran, investment and planning should be directed towards these three sources of energies. Obviously, reliance on biomass energy, at a larger scale, can further reduce the dependence on fossil fuels, while creating job opportunities in the country’s villages. The wind energy, too, can have an important role in overcoming energy shortage in Iran especially in remote rural regions. Furthermore, Iran can prove to have a high potential for using solar energy, considering the fact that the country receives solar light over 2800 hours per year.

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